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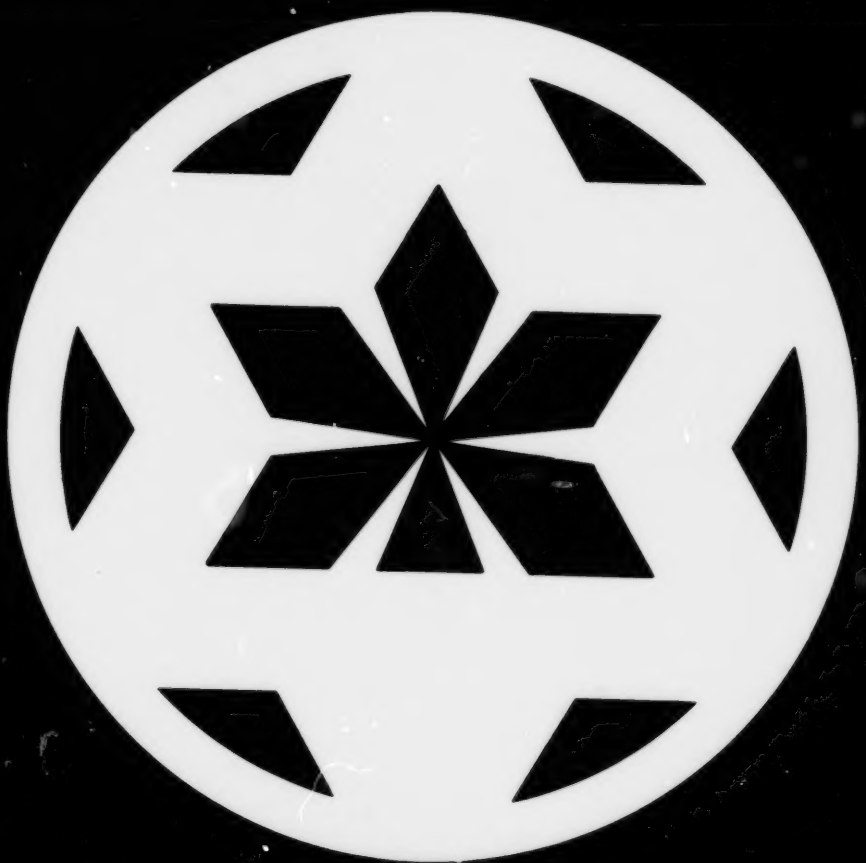

Current research in the Geological Sciences in Canada May 1985 - April 1986

Travaux en cours dans le domaine des sciences géologiques au Canada mai 1985 à avril 1986

Compiled by
THOMAS E. BOLTON

Canada

1986

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TRAVAUX EN COURS DANS LE DOMAINE DES SCIENCES GÉOLOGIQUES AU CANADA, DE MAI 1985 À AVRIL 1986

Compiled by / Préparé par
THOMAS E. BOLTON

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INTRODUCTION

The present publication recording research in progress in Canada from May 1985 to April 1986 is the result of a survey conducted between January, 1986 and March, 1986.

The research projects listed in this compilation are being undertaken mainly within federal and provincial departments, and universities. A relatively complete overview of scientific research activities within Canada in the geological and allied sciences is provided for the survey period.

Using the data supplied for this compilation by the respondees, some indication as to the lines of research receiving the greatest and least attention can be formulated. At least 327 research projects have not been previously reported. The greatest increase during the 1985-86 period was in the fields of Mineral/Energy Geoscience (76), Areal Mapping (37) and Geochemistry (32). Research projects undertaken as graduate thesis in the universities are so specified wherever possible.

Additional details on research in the earth and related sciences underway in Canada during 1985 can be obtained through the annual reports prepared by individual university departments, research councils, and museums. Comprehensive reports on geophysical research and development, including volcanology and oceanography related research, are contained within the Canadian Geophysical Bulletin published by the Earth Physics Branch of the Department of Energy, Mines and Resources. Summaries of progress and short research reports related to hydrology/water-related environmental research and glaciology are provided annually by the Water Resources Branch of the Department of Environment Canada and the Associate Committee on Hydrology, National Research Council. Quaternary research in Québec is reviewed annually in the "Bulletin d'information de l'Association québecoise pour l'étude de Quaternaire".

Again this year a listing is included of the 1985 awards provided for geological research within the Research Agreements programs of the Departments of Energy, Mines and Resources and Indian and Northern Affairs Canada. The Natural Sciences and Engineering Research Council Canada also provided a computer print-out of the operating grants actually awarded in 1985. The 1985 Ontario Research Grants and Polar Continental Shelf Project field support to non-governmental activities are also listed.

Use of the compilation

The projects are grouped under main headings that cover the majority of disciplines within the geological and allied sciences. These groupings are unchanged from last years compilation (Geological Survey of Canada, Paper 85-5, 1985).

A complete list of organizations contributing to the present survey is included. Acknowledgment is made in particular to those who assembled and forwarded the data on research projects underway in the organizations under their direction. As a convenience, an alphabetically arranged index lists each investigator and the reference number(s) of his project(s).

INTRODUCTION

La présente publication, qui fait état de la recherche réalisée au Canada de mai 1985 à avril 1986, est le fruit d'une enquête effectuée entre Janvier 1986 et mars 1986.

Les projets de recherche enumérés sont exécutés surtout par des ministères fédéraux et provinciaux, et par des universités. Un aperçu assez complet de l'activité de recherche scientifique au Canada pour la periode visée dans le domaine de la géologie et des sciences connexes est cependant fourni.

À partir des renseignements donnés par les participants à l'enquête, il est possible de voir quels genres de recherche retiennent le plus et le moins l'attention. Au moins 327 projets nous ont été signalés pour la première fois. Les domaines où la recherche s'est le plus accrue durant l'année 1985-1986 sont les sciences de la Terre-Énergie/Minéraux (76), la Cartographie (37) et la Géochime (32). Les projets de recherche de 2^{E} cycle, dans les universités, sont également précisés, dans la mesure du possible.

On peut se procurer de plus amples détails sur la recherche réalisée en 1985 au Canada dans le domaine des sciences de la Terre et des sciences connexes en consultant les rapports annuels mis au point par les différents départements l'universités, conseils de recherche et musées. Le volume du Canadian Geophysical Bulletin, publié par la Direction de la physique du Globe du ministère de l'Énergie, des Mines et des Ressources, comprend des rapports complets sur les travaux de recherche et les dernières réalisations en géophysique, y compris la recherche connexe en volcanologie et en océanographie. Des résumés des progrès réalisés et de brefs rapports ayant trait à la glaciologie et à la recherche environnementale liée à l'hydrologie sont publiés annueullement par la Direction des ressources en eau d'Environnement Canada et par le Comité associé de l'hydrologie, du Conseil national de recherches du Canada. La recherche sur le Quaternaire au Québec est signalée anneullement dans le "Bulletin d'information de l'Association québecoise pour l'étude du Quaternaire".

Nous incluons à nouveau cette année une liste des prix décernés en 1985 pour la recherche géologique dans le cadre des programmes d'accords de recherches des ministères de l'Énergie, des Mines et des Ressources et de les Affaires Indiennes et du Nord. Le Consiel de recherches en sciences naturelles et en génie du Canada a également fourni un imprimé d'ordinateur détaillant les subventions aux travaux réellement accordées en 1985. On a signalé également dans ce rapport les subventions de recherche de la Commission Géologique de l'Ontario (Ontario Research Grants) et l'aide de l'Étude du plateau continental polaire en faveur d'activités non gouvernementales pour 1985.

Présentation

Les projets sont groupés sous des titres généraux s'appliquant à la majorite des disciplines que comprennent la géologie et les sciences connexes. Ces catégories sont les mêmes que l'année dernière (Étude 85-5, Commission géologique du Canada, 1985).

Une liste complète des organismes qui ont contribué à l'enquête a été dressée. Nous tenons à remercier particulièrement les personnes qui ont recueilli et envoyé les données concernant les projets de recherche en cours dans les organismes dont elles sont responsables. Pour vous faciliter la consultation, un répertoire alphabétique donne les noms de tous les enquêteurs et le(s) numero(s) de reférence de son(ses) projets(s).

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

1. ALLDRICK, D.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
   Anyox project (NTS 103 P/5), British Columbia, 1985-86.

   See:

   Stratigraphy and structure in the Anyox area (NTS 103 P/1); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 211-216, 1986.

   Sampling for microfossil study was completed in conjunction with structural and lithofacies mapping of the hangingwall sedimentary strata adjacent to the Anyox orebodies.

2. ALLDRICK, D.J., DAWSON, G.L., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
   Alice Arm project (NTS 103 P/11, 12), British Columbia, 1985-86.

   See:

   Geology and mineral deposits of the Kitsault Valley (NTS 103 P 11/12); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 219-224, 1986.

   To establish a stratigraphic column for the map area, and to document the regional geological setting. Most of the 120 mineral occurrences in the map area are hosted in one andesitic volcanic formation of Lower Jurassic age.

3. ALLDRICK, D.J., McMILLAN, W.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
   Salmon River project (NTS 104 B/1), British Columbia, 1982-85.

   Volcanic stratigraphy and structure of the Stewart Mining Camp.

4. ANDERSON, R.G., Geol. Surv. Can.:
   Geology of the Iskut River – Telegraph Creek area, British Columbia, 1984-.

5. BROWN, D.A., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
   Geochronology, stratigraphy and structure of the Hazelton-Bowser Lake groups in the vicinity of the Silbak Premier Mine, Stewart, British Columbia, 1984-86; M.Sc. thesis (Brown).

   Silbak Premier Mine, B.C.'s second largest total gold producer, occurs within Hazelton Group calc-alkaline volcanics. Thesis research is aimed at establishing the stratigraphic and structural setting of the mine.

6. DODDS, C.J., Geol. Surv. Can.:
   Geology of Skagway (104 M) map-area, British Columbia, 1982-.

7. FRIEDMAN, R.M., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
   Geology and geochronology of the Tatla Lake Metamorphic Complex, southwestern Interior British Columbia, 1984-86; Ph.D. thesis (Friedman).

   To produce a detailed lithologic/structural map of TLMC (completed); to bracket relative/absolute timing of deformation(s) with U-Pb (zircon) and K-Ar dating techniques; and to integrate TLMC geological history into regional tectonic framework of British Columbia

8. GHENT, E.D., MIHALYNUK, M., Univ. Calgary (Geology and Geophysics):
   Deformation and low grade metamorphism of a stratigraphic succession of Hazelton Gp. volcanics near Terrace, British Columbia, 1984-86; M.Sc. thesis (Mihalynuk).

   In addition, initial microthermometric (fluid inclusion) analyses may prove useful in deciphering the time – temperature – transformation of these low grade rocks.

9. GREIG, C.J., ARMSTRONG, R.L., MONGER, J.W.H., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
   Petrology and geochronometry of the Mt. Lytton batholith/Eagle granodiorite, southwestern British Columbia, 1986-88; M.Sc. thesis (Greig).

10. GRIEVE, D.A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
    Geology and coal resources of the Elk valley coalfield, northern half, British Columbia, 1986-.

    To extend published detailed coalfield mapping an additional 40 km along strike. Sampling of coal for petrographic analysis will be an important component.

11. LEGUN, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
    Geology of the Carbon Creek area (930/15), British Columbia, 1984-.

    See:

    British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 155-160, 1986.

    Geologic mapping of Cretaceous coal basins and their bounding stratigraphy.

12. McLAREN, G.P., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
    Mineral potential evaluation of the Chilko-Taseko Lakes area, British Columbia, 1985.

    See:

    Geology and mineral potential of the Chilko-Taseko Lakes area (92 O/4,5; 92 J/13; 92 K/16; 92 N/1); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 265-274, 1986.

13. McMECHAN, M.E., Geol. Surv. Can.:
    Detailed geological study of selected areas within the Foothills and Rocky Mountain Belts between Peace River and Smoky River with emphasis on structure, British Columbia and Alberta, 1981-.

    See:

    Low-taper triangle-zone geometry: an interpretation for the Rocky Mountain Foothills Pine Pass-Peace River area, British Columbia; Bull. Can. Soc. Petrol. Geol., vol. 33, no. 1, p. 31-38, 1985.

14. MOTT, J.A., DIXON, J.M., HELMSTAEDT, H., Queen's Univ. (Geological Sciences):
    Structural and stratigraphic analysis of a tightly folded Ordovician carbonate-shelf to slope to shale-basin facies transition zone, southern Canadian Rockies, 1984-88; Ph.D. thesis (Mott).

    One season of completed mapping reveals that sub-Beaverfoot and sub-Devonian unconformities cut sharply into Lower Ordovician McKay Group sediments. The Gypsum Fault is interpreted to be cut by normal faults and lies west of the Bull River Valley.

15. PANTELEYEV, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
    Quesnel Mineral Belt, NTS 93 A, British Columbia, 1986-89.

    A Canada-British Columbia mineral development agreement (MDA) enhanced regional mapping/metallogenic study of gold and copper-gold deposits in Triassic volcanic terrane.

16. PRICE, R.A., Geol. Surv. Can.:
    Operation Bow-Athabasca, British Columbia and Alberta, 1965-.

    See:

    Structure section of the Cordilleran foreland thrust and fold belt west of Calgary, Alberta; Geol. Surv. Can., Paper 84-14, 1985.

17. RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
    Coquihalla gold belt project, British Columbia, 1981-86.

    Shows the gelogy of the Hozameer Fault system and Coquihalla serpentine belt in southwestern British Columbia. The area includes the mineral occurrences comprising the "Coquihalla Gold Belt".

18. RAY, G.E., SIMPSON, R., WILKINSON, W., THOMAS, P., British Columbia Ministry Energy, Mines Petrol. Res. (Geol. Br.):
    Hedley gold-silver project, British Columbia, 1985.

    See:

    Preliminary report on the Hedley Mapping Project; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 101-105, 1986.

    Describes the regional geology and stratigraphy of the Triasic sedimentary rocks in the Hedley area. Mention is made of the gold-silver bearing streams in the district.

19. TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
    Penticton map area 82 E, British Columbia, 1983-.

    See:

    Extension across the Eocene Okanagan crustal shear in southern British Columbia; Geology, vol. 14, no. 4, p. 318-321, 1986.

20. WOODSWORTH, G.J., Geol. Surv. Can.:
    Eastern margin of the Coast Plutonic Complex, British Columbia, 1980-.

MANITOBA/MANITOBA

21. BAILES, A.H., Manitoba Dept. Energy and Mines (Geol. Services):
    Chisel – Morgan Lakes project, Manitoba, 1987-.

    To develop a coherent volcanic stratigraphy for the area and to outline the main features of a regionally extensive hydrothermal alteration system.

22. BAILES, A.H., SYME, E.C., Manitoba Dept. Energy and Mines (Geol. Services):
    Flin Flon-White Lake project, Manitoba, 1979-87.

    This 1:20 000 mapping project provides a sound geological base for mineral exploration in Early Proterozoic Amisk Group volcanic rocks near the town of Flin Flon. It includes detailed examination of volcanological features and processes, as well as over 200 whole rock chemical analyses. A comprehensive report will be published in 1987.

23. CORKERY, M.T., LENTON, P.G., CAMERON, H.D.M., Manitoba Dept. Energy and Mines (Geol. Services):
    Cross Lake project, Manitoba, 1983-89.

    Project encompasses three major research themes: 1) 1:20 000 mapping of the supracrustal rocks; 2) 1:20 000 mapping of granitic-gneissic complexes and rare element enriched pegmatites; and 3) evaluation of titanium-vanadium-bearing magnetite-illmanite.

24. ELBERS, F.J., GILBERT, H.P., HUBREGTSE, J.J.M.W., MARTEN, B.E., Manitoba Dept. Energy and Mines (Geol. Services):
    Greenstone research, Manitoba, 1980-85.

25. GILBERT, H.P., Manitoba Dept. Energy and Mines (Geol. Services):
    Melvin Lake, Manitoba, 1979-87.

    Study area is extension of Lynn Lake area; Final report and maps in preparation.

26. GILBERT, H.P., NEALE K., WEBER, W., Manitoba Dept. Energy and Mines (Geol. Services):
    Island Lake, Manitoba, 1981-87.

    Final report and maps in preparation.

27. SYME, E.C., Manitoba Dept. Energy and Mines (Geol. Services):
Athapapuskow Lake, Manitoba, 1985-88.

See:

Athapapuskow Lake project; Manitoba Dept. Energy and Mines, Rept. Field Activities, p. 44-47, 1985.

To define the Early Proterozoic Amisk Group volcanic stratigraphy, determine the stratigraphic and structural setting of mineral deposits in the area, determine the positions and extent of major block-bounding faults, and determine the geochemical characteristics of volcanic and plutonic units in the map area.

28. ZWANZIG, H.V., SCHLEDEWITZ, D.C.P., Manitoba Dept. Energy and Mines (Geol. Services):
Kisseynew project, Manitoba, 1983-.

The Kisseynew Project is an areal mapping program at the transition between the Kisseynew metasedimentary gneiss belt and the Flin Flon metavolcanic belt – to provide structural and stratigraphic control for the base and precious metal deposits of the Kississing Lake – Batty Lake region.

**NEW BRUNSWICK/
NOUVEAU-BRUNSWICK**

29. BARR, S.M., Acadia Univ. (Geology):
Field relations, petrogenesis, age, and economic potential of plutonic and associated metavolcanic rocks, eastern Caledonian Highlands, New Brunswick, 1985-.

To examine in detail the distribution, field relations, petrology, geochemistry, and age of the granitoid rocks and host metavolcanic rocks in order to interpret petrogenesis, tectonic setting, and economic potential, and compare them to units of similar age elsewhere in the Avalon Zone.

**NEWFOUNDLAND/LABRADOR/
TERRE-NEUVE/LABRADOR**

30. COLMAN-SADD, S., Newfoundland Dept. Mines and Energy:
Bay D'Espoir-Great Burnt Lake project, 1974-.

See:

Geology of the east part of the Snowshoe Pond (12 A/7) area; Newfoundland Dept. Mines and Energy, Report 86 -1, 1986.

The east part of the Snowshoe Pond area is underlain by clastic sediments of probable Ordovician age, and granites. These may have been overthrust by Ordovician sedimentary and volcanic rocks of the Central Volcanic Belt along a major tectonic boundary, Noel Paul's Line.

31. DICKSON, W.L., POOLE, J., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sciences):
Geology and geochemistry of the Burgeo and Francois Granite, Newfoundland, 1984-87; M.Sc. thesis (Poole).

See:

Regional geology of the Central Hermitage Flexure, southern Newfoundland; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

The Burgeo granite is an extensive variably foliated granodiorite and granite which have intruded Ordovician sedimentary and volcanic rocks. Subsequent to deformation of all these units the Burgeo granite has been intruded by high level, high silica granitoids during the Lower to Middle Devonian. All the granitoids are potassium rich and have been derived by partial melting of continental basement and possibly also the Ordovician metasediments and volcanics during the Acadian (Silurian) Orogeny.

32. HERD, R.K., Geol. Surv. Can.:
Geology of Red Indian Lake, west-half, Newfoundland, 1977-86.

33. JACKSON, V.A., YEO, G., EASTON, R.M., PADGHAM, W.A., HELMSTAEDT, H., Indian Affairs and Northern Development (NAP) Canada, Queen's Univ. (Geological Sciences):
Geology of Quyta Lake area (85 J/16) and Geology of Hepburn Island area (76 M), 1974-86.

See:

Geology of Quyta Lake area (85 J/16); Indian Affairs and Northern Development Canada, Geoscience Forum, Exploration Overview, p. 22-23, 1985.

Geology of eastern Hepburn Island area (76 M); ibid., p. 20-22, 1985.

Mapping of Quyta Lake area is complete, now compiling geology of area for 1:50 000 map sheet. Mapping of Hepburn Island area almost complete, now compiling 1:250 000 map sheet, and continuing analytical work for eventual publication of map and accompanying report. Aims for 1986 are to trace High Lake volcanic belt (76 M) to south into 76 L map sheet and initiate a mapping project in Archean supracrustal rocks in the Russel Lake area (85 J/13, J/14, 850/3, O/6).

34. O'BRIEN, S.T., Newfoundland Dept. Mines and Energy:
Geology of Burgeo (11 P) 1:250,000 map area, Newfoundland, 1985-86.

See:

Geology of the central portion of the Hermitage Flexure area, Newfoundland; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

To complete regional mapping and related studies of granite – migmatite and metasedimentary – metavolcanic terranes of the central Hermitage Flexure area, Southwest Newfoundland. To produce 1:50 000 and 1:250 000 geological maps. Reports in progress; maps completed.

35. RYAN, B., Newfoundland Dept. Mines and Energy:
Northern Nain – Churchill project: a transect of the Nain and Churchill Provinces and Elsonian and younger plutons between Nain and Strange Lake, 1985-89.

See:

Gneiss-anorthosite-granite relationships in the Anaktalik Brook-Kogaluk River area, Labrador (NTS 14 D/1, 8); Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Preliminary 1:100 K map of 1985 project area available as Open File 85-66. Two 1:50 K maps with descriptive notes will be published in spring of 1986.

**NORTHWEST TERRITORIES/
TERRITOIRES DU NORD-OUEST**

36. HENDERSON, J.B., Geol. Surv. Can.:
Keskarrah Bay map-area, District of Mackenzie, 1976-.

37. HOFFMAN, P.F., Geol. Surv. Can.:
East Arm of Great Slave Lake, District of Mackenzie, 1966-.

38. JAMES, D.J., DIXON, J.M., CARMICHAEL, D.M., Queen's Univ. (Geological Sciences):
Geology across part of the Thelon Tectonic Zone, Northwest Territories, 1983-87; Ph.D. thesis (James).

See:

Geology of the Moraine Lake area, District of Mackenzie; Part two: a transect across part of the Thelon Tectonic Zone; Geol. Surv. Can., Paper 86-1A, p. 417-421, 1986.

39. MORROW, D.W., Geol. Surv. Can.:
Southwestern Ellesmere-western Devon Islands (Operation Grinnell), District of Franklin, 1967-.

40. THORSTEINSSON, R., Geol. Surv. Can.:
Cornwallis and adjacent smaller islands, District of Franklin, 1965-.

NOVA SCOTIA/NOUVELLE-ÉCOSSE

41. COREY, M.C., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith, Nova Scotia, 1983-87.

See:

Bedrock geology of the South Mountain Batholith on NTS Sheet 11 D/13; Nova Scotia Dept. Mines and Energy, Rept. 86-1, 1986.

42. HORNE, R.J., MACDONALD, M.A., HAM, L., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith Project (S.M.B.P.), Nova Scotia, 1985-88.

See:

The Geology of the South Mountain Batholith, NTS' Sheets 11 D/05 and 11 D/12; Nova Scotia Dept. Mines and Energy, Report 86-1, 1986.

Geology of the South Mountain Batholith, on the eastern half of N.T.S. Sheet 21/A16; ibid., 1986.

The SMBP was begun in 1985 with the goal of producing a series of 1:50 000 scale maps of the batholith with emphasis on the recognition of mappable phases of the granitoid rocks and describing the petrology of the units. The relationship between them and alteration associated with them. As well, the structures with the batholith and mineral occurrences have been studied. Accumulated data will assist in the formulation of petrogenetic models as well as models to explain the various mineral occurrences. 1/3 complete.

43. MACDONALD, M.A., HORNE, R.J., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith project, Nova Scotia, 1983-1987.

See:

Variation in granitoid rocks along highway 103 between Chester and Halifax; Nova Scotia Dept. Mines and Energy, Report 85-1, p. 91-104, 1985.

Have completed approximately 1/4 of the South Mountain Batholith to date. Expect to complete the mapping of the Batholith by the end of the project.

44. RAESIDE, R.P., BARR, S.M., Acadia Univ. (Geology):
Geological mapping of the Cape Breton Highlands, Nova Scotia, 1983-87.

See:

Geology of the northernmost Cape Breton Highlands, Nova Scotia; Geol. Surv. Can., Paper 86-1A, p. 291-296, 1986.

Igneous and metamorphic geology of the Cape Breton Highlands; Geol. Assoc. Canada-Mineral. Assoc. Can. Annual Meeting. Excursion 10, 1985.

Mapping of the northernmost part of the Cape Breton Highlands has shown that the northwest is underlain by gneisses, anorthosites, monzodiorite, and syenite, distinct from the schists and gneisses of the Cape North and Money Point Groups to the east.

45. RAESIDE, R.P., HOPE, T.L., Acadia Univ. (Geology):
Regional geology and metamorphic petrology of the Port Mouton area, southwestern Nova Scotia, 1985-86; M.Sc., thesis (Hope).

See:

Geological mapping and igneous and metamorphic petrology, Queen's and Shelburne counties, Nova Scotia; Geol. Surv. Can., Paper 86-1A, p. 429-433, 1986.

Mapping has been completed. The area is underlain by the Meguma Group, which is isoclinally folded into a series of large folds. These have been intruded by the Port Joli Pluton, which is centred on pre-existing metamorphic culmination.

ONTARIO/ONTARIO

46. AYER, J.A., Ontario Geol. Surv.:
Geology of the Bigstone Bay area (Rat Portage Bay area), Lake of the Woods, Ontario, 1984-86.

See:

Geology of the Rat Portage Bay area, Lake of the Woods, District of Kenora; Ontario Geol. Surv., Misc. Paper 126, p. 36-40, 1985.

Geology of the Bigstone Bay area, southern and northern parts; Ontario Geol. Surv., Prel. Maps, P. 2830, P. 2831, 1985.

Detailed mapping of an area with intense gold exploration activity.

47. BEAKHOUSE, G.P., Ontario Geol. Surv.:
Precambrian geology of the western Birch Lake area, Ontario, 1985.

See:

Geology of the southwestern Birch lake area, District of Kenora (Patricia Portion); Ontario Geol. Surv., Misc. Paper 126, p. 8-12, 1985.

48. BERGER, B., ROY, P.L., MACMILLAN, D.W., Ontario Geol. Surv.:
Geology of the Hearst-Kapuskasing area, Ontario, 1985-86.

See:

Hearst-Kapuskasing area, District of Cochrane; Ontario Geol. Surv., Misc. Paper 126, p. 95-98, 1985.

Preliminary maps-in press; geological report and final maps ready to go to press by end of March, 1986.

49. BOWEN, R.P., LOGOTHETIS, J., HEATHER, K.B., REID, R.G., Ontario Geol. Surv., Univ. Windsor (Geology):
Geology of the Mishibishu Lake area, Districts of Algoma and Thunder Bay, Ontario, 1985-; M.Sc. thesis (Reid).

To complete 1" to 1/4 mile detail mapping and complete analysis of petrology, chemistry, structure and mineral deposits and linking this research to past and on-going mineral exploration in the area.

50. BRIGHT, E.G., Ontario Geol. Surv.:
Precambrian geology of the Mellon Lake area, Grenville Province, southern Ontario, 1985-85.

See:

Precambrian geology of the Mellon Lake area, Hastings, Lennox and Addington, and Frontenac counties; Ontario Geol. Surv., Geol. Ser. Prel. Map. P. 2648, 1985.

Geology and mineral potential of the Mellon Lake area, eastern Ontario; Ontario Geol. Surv., geoscience research seminar and Open House '85, Abstracts, p. 14, 1985.

51. CARTER, M.W., THURSTON, P.C., VINCZE, K., Ontario Geol. Surv., Queen's Univ. (Geological Sciences):
Forbes and Conmee Townships, Ontario, 1984-85.

See:

Forbes and Conmee Townships, District of Thunder Bay; Ontario Geol. Surv., Misc. Paper 126, 1985.

The consolidated rocks of the map-area consist of Precambrian rocks comprising an earlier Archean Keewatin-type metavolcanic-metasedimentary sequence of komatiitic to felsic volcanic rocks, the ultramafic and mafic rocks being a probable ophiolite sequence. The supracrustal rocks are intruded by gabbroic and granitoid plutons. Younger Timiskaming-type volcanic rocks comprise a shoshonitic suite forming a central volcanic complex. These are overlain by young Timiskaming-type metasediments. Late diabase dikes, a lamprophyre breccia and syenite also occur.

52. DRESSLER, B., Ontario Geol. Surv.:
Mapping of Falconbridge and Street townships, District of Sudbury (1:15840), Ontario, 1985-87.

53. EASTON, R.M., Ontario Geol. Surv.:
Mapping of Minden area (Grenville Structural Province); 1:15840, Ontario, 1983-86.

See:

Stratigraphy along the central metasedimentary belt boundary zone near Minden: implications for mineral exploration; Ontario Geol. Surv., Geoscience Res. Seminar Abstract, p. 15, 1985.

Lochlin area, Haliburton County; Ontario Geol. Surv., Misc. Paper 126, p. 121-126, 1985.

Precambrian geology of the Digby-Lutterworth area: Haliburton and Victoria Counties; Ontario Geol. Surv., Preliminary Map P. 2951 (West) and P. 2952 (East), 1985.

Mapping will be completed in the summer of 1986.

54. GOOD, D.J., Ontario Geol. Surv.:
Geology of the Birch Lake area (eastern half), Northwestern Ontario, 1985.

See:

Birch Lake area (eastern half), District of Kenora (Patricia Portion); Ontario Geol. Surv., Misc. Paper 126, 1985.

55. JOHNS, G.W., Ontario Geol. Surv.:
Kahagi-Rowan Lake synaptic project, 1983-87.

See:

Kahagi-Rowan Lake regional geology, District of Kenora; Ontario Geol. Surv., Misc. Paper 126, p. 41-46, 1985.

A volcanic facies interpretation of the Berry River Formation; Instit. Lake Superior Geol., Field Trip Guidebook, p. 105-156, 1985.

Regional scale mapping with emphasis upon physical volcanology and mineral deposits.

56. MARMONT, C., Ontario Geol. Surv.:
Tofflemire, Venturi and Vernon Townships, Ontario, 1985-86.

To study distribution and structural control of Huronian metasedimentary outliers in the footwall of the Sudbury structure, N.W. of Sudbury Area also includes the Spanish River Carbonatite Complex. Also to study palaeoplacer gold potential of Huronian metasediments in map area.

57. MUIR, T.L., Ontario Geol. Surv.:
Hemlo stratigraphic studies, Ontario, 1984.

A tectonostratigraphic study of the area immediately surrounding the Hemlo Gold Camp – to synthesize industrial, academic and governmental studies into an overview of the geology at the camp.

58. SAGE, R.P., Ontario Geol. Surv.:
Geology of the Wawa area, Ontario, 1979-85.

Regional geology with emphasis upon mineral deposits.

59. SAGE, R.P., Ontario Geol. Surv.:
Geology of the Josephine area (Wawa), Ontario, 1981-85.

See:

Goudreau-Lochalsh area, District of Algoma; Ontario Geol. Surv., Misc. Paper 126, p. 90-94, 1985.

Areal mapping north of Wawa leading shortly to a regional overview of the Wawa camp – emphasis upon mineral deposits.

60. SUTCLIFFE, R.H., SWEENY, M., SMITH, A., Ontario Geol. Surv., Univ. Western Ontario (Geology):
Mafic/ultramafic intrusions in the Wabigoon Subprovince: Lac Des Iles Complex and Mulcahy Gabbro, 1984-87; M.Sc. theses (Sweeny, Smith).

See:

Geology of the Mulcahy Gabbro; Ontario Geol. Surv., Prel. Map P. 2826, 1985.

To investigate the petrology, mineral potential and tectonic setting of late Archean mafic intrusions in Northwestern Ontario.

61. THURSTON, P.C., Ontario Geol. Surv.:
Atikokan-Lakehead compilation map, Ontario, 1983-87.

See:

Atikokan-Lakehead compilation project; Ontario Geol. Surv., Misc. Paper 126, p. 56-59, 1985.

Regional scale mapping in an area bounded by long. 92°-88°, lat. US Boundary to 50°.

QUÉBEC

62. BOURNE, J., Université du Québec à Montreal:
Géologie des plutons granitiques, Région de L'Estrie, Québec, 1985-86.

Achever la cartographie géologique 1:1000 des plutons granitiques de l'Estrie.

63. BOURQUE, Y., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Région du Lac Mina, Nouveau-Québec, 1983-86.

Voir:

Géologie de la région du Lac Mina, Nouveau-Québec; MERQ, DP 85-30, 1986.

Une reconnaissance géologique et une évaluation préliminaire du potentiel minéral du territoire à l'est de la Fosse du Labrador.

64. COLPRON, M., Université du Québec à Montréal:
Géologie du Groupe d'Oak Hill, Région du Lac Brome, Québec, 1986-88; thèse de maîtrise.

Achever la cartographie géologique 1:50 000/31 H2; réaliser la cartographie géologique 1:2000/31 H2-0202; cartographier l'anticlinorium de Sutton; et cartographier le Groupe d'Oak Hill.

65. COUSINEAU, P.S., Université Laval (Géologie):
Géologie du Groupe de Magog, Région de Saint Pamphile, Québec, 1982-86; thèse de doctorat.

Achever la cartographie géologique 1:50 000/21 K13; réaliser la cartographie géologique 1:20 000/21 K13-02 01; cartographier le synclinorium de Saint Victor; et cartographier le Groupe de Magog.

66. DANIS, D., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Région du Lac Recouet, Nouveau-Québec, 1985-86.

Voir:

Géologie de la région du Lac Recouet, Nouveau-Québec; MERQ, DP 85-31, 1986.

Reconnaissance géologique et évaluation préliminaire du potentiel minéral du territoire à l'est de la Fosse du Labrador. Ce travail fait partie d'un projet à long terme qui a débuté en 1983.

67. DUBOIS, J-M.M., Université de Sherbrooke (Géographie):
Géologie du Quaternaire de la Côte Nord du Saint-Laurent, Québec, 1974-87.

Voir:

The Québec North Shore Moraine System: A major feature of Late Wisconsin deglaciation; Geol. Soc. Amer., Spec. Paper 197, p. 125-138, 1985.

Le système morainique le plus long de l'est du Canada; Geos, vol. 14, p. 7-10, 1985.

Les orststeins de la Côte Nord du Saint-Laurent: répartition géographique et relations géomorphologiques; Annales de l'Acfas, vol. 52-53, p. 315, 1985.

68. DUBOIS, J-M.M., Université de Sherbrooke (Géographie):
Carte des mers postglaciaires du Canada: section de la Côte Nord du Saint-Laurent, Québec, 1980-85.

Etablissement d'une carte au 1:250 000 de la zone de la mer de Goldthwait: dépôts meubles, géomorphologie et littoral actuel. Les cartes de Tadoussac à Havre-Saint-Pierre restent à publier.

69. GAUTHIER, M., Université du Québec à Montréal:
Gîtologie region de l'Estrie, Québec, 1984-87.

Réaliser l'étude gîtologique des indices, des gîtes et des gisements de l'Estrie; classifer les gîtes; et molifier les fiches de gîte.

70. HOCQ, M., Ministère de l'Énergie et des Ressources du Québec:
Région de Joutel-Quévillon, Québec, 1980-85.

Stratigraphie – tectonique de la bande volcanosédimentaire: Normétal – Quévillon – Front de Grenville.

71. KIRKWOOD, D., Ministère de l'Énergie et des Ressources du Québec:
Région de Percé, Québec, 1985-86; thèse de maîtrise.

Cartographie géologique systématique de la région de Percé, au 1:20 000. Phase de terrain completée, et rapport préliminaire soumis.

72. LABBÉ, J-Y., Université Laval (Géologie):
Géologie de la Formation de Weedon, Région de Weedon-Centre, Québec, 1986-88; thèse de maîtrise.

Achever la cartographie géologique 1:50 000/21 E11; réaliser la cartographie géologique 1:20 000/21 E11-02 01; cartographie l'anticlinorium des Monts Stoke; et cartographie la Formation de Weedon.

73. LAPOINTE, B., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Région du Lac Pailleraut, Nouveau-Québec, 1985-86.

Voir:

Reconnaissance géologique de la région du lac Pailleraut, territoire du Nouveau-Québec; MERQ, MB 85-73, 1986.

Une reconnaissance géologique régionale; une évaluation du potentiel minéral de la région.

74. MARECHAL, P., Université Laval (Géologie):
Géologie des schistes de Bennett, Région de Pontbriand, Québec, 1986-88; thèse de doctorat.

Achever la cartographie géologique 1:50 000/21 L 3; réaliser la cartographie géologique 1:20 000/21 L3-02 01; cartographier l'anticlinorium de Sutton; et cartographier les schistes de Bennett.

75. MARQUIS, R., Université du Québec à Montréal:
Géologie du Groupe d'Oak Hill, Région de Roxton-Est, Québec, 1984-87; thèse de doctorat.

Achever la cartographie géologique 1:50 000/31 H9; réaliser la cartographie géologique 1:20 000/31 H9-0101; cartographier l'anticlinorium de Sutton; et cartographier le Groupe d'Oak Hill.

76. MARTIGNOLE, J., INDARES, H., DESJARDINS, D., KISH, L., IREM-MERI, Ministère de l'Énergie et des Ressources du Québec:
Région du Lac Arthur, Côte-Nord, Québec, 1985-86.

Une connaissance du contexte lithostratigraphique et tectonique du Groupe de Wakeham; relations avec le soubassement; corrélations régionales.

77. MOORHEAD, J., LAMOTHE, D., Ministère de l'Énergie et des Ressources du Québec:
Région du Lac Chukotat, Fosse de l'Ungava, 1983-86.

Voir:

Géolgoie de la région du Lac Chukotat, Fosse de l'Ungava, Nouveau-Québec; MERQ, DP 86-01, 1986.

Il vise une synthèse géologique de la Fosse de l'Ungava (ceinture de Cap Smith – Maricourt) et une évaluation de son potentiel minéral.

78. MORIN, R., SIMARD, M., SIDAM-MINOREX, Ministère de l'Énergie et des Ressources du Québec:
Région de Sirois et Raudin, Québec, 1985-87.

Cartographie géologique systématique d'une région de la Gaspésie est-centrale. (1:20 000). Phase de terrain completée. Rapport soumis en révision.

79. TREMBLAY, A.B., Université Laval (Géologie):
Géologie de la Formation d'Ascot, Région de Sherbrooke, Québec, 1985-88; thèse de doctorat.

Achever la cartographie géologique 1:50 000/21 E 5; réaliser la cartographie géologique 1:20 000/21 E 5-0101; cartographie l'anitclinorium des Monts Stoke; et cartographie la Formation d'Ascot.

80. TREMBLAY, G., LAMOTHE, D., Ministère de l'Énergie et des Ressources du Québec:
Région du Lac Vanasse, Fosse de l'Ungava, 1983-86.

Voir:

Géologie de la région du Lac Vanasse, Fosse de l'Ungava, Nouveau-Québec; MERQ, DP 85-29, 1986.

Il vise une synthèse géologique de la Fosse de l'Ungava (ceinture de Cap-Smith) et une évaluation de son potentiel minéral.

SASKATCHEWAN/SASKATCHEWAN

81. HARPER, C., Saskatchewan Geol. Surv.:
Gold belt geology: Waddy-Tower Lakes area, Saskatchewan, 1984-86.

See:

Bedrock geological mapping, Waddy-Tower Lakes area (part of NTS 64D-4 and -5 and 74A-1 and -8); Saskatchewan Geol. Surv., Misc. Rept. 85-4, p. 6-17, 1985.

To remap important areas of the La Ronge Volcanic belt at 1:20 000 scale. Mapping between Waddy and Star Lakes expected to be completed in 1986.

82. THOMAS, D.J., Saskatchewan Geol. Surv.:
Bedrock geological mapping, Star-Roundish-Bervin Lakes area, Saskatchewan, 1984-89.

To geologically map southern portion of Central Metavolcanic Belt, La Ronge Domain at 1:20 000 scale and establish geological setting of gold and base metal mineralization.

YUKON TERRITORY/ TERRITOIRE DU YUKON

83. CAMPBELL, R.B., Geol. Surv. Can.:
Operation Mount St. Elias, Yukon-British Columbia, 1973-.

84. NORRIS, D.K., Geol. Surv. Can.:
Operation Porcupine, Yukon-District of Mackenzie, 1961-.

85. THOMPSON, R.I., Geol. Surv. Can.:
Stratigraphy and structure of Dawson, Larsen Creek and Nash Creek map areas, Yukon Territory, 1980-.

AREAL MAPPING, LESS DETAILED THAN 1:50 000/CARTOGRAPHIE, À PLUS PETITE ÉCHELLE QU'AU 1:50 000

ALBERTA/ALBERTA

86. GODFREY, J.D., LANGENBERG, C.W., Alberta Research Council (Geol. Surv.):
Precambrian mapping of northeastern Alberta, 1974-85.

See:

Geology of the Fi zgerald-Tulip-Mercredi-Charles Lakes district, Alberta; Alberta Research Council, Earth Sciences Rept. 84-7, 1986.

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

87. GABRIELSE, H., Geol. Surv. Can.:
Operation Finlay, British Columbia, 1970-.

88. GABRIELSE, H., Geol. Surv. Can.:
Operation Dease, British Columbia, 1977-.

89. MCMECHAN, M.E., Geol. Surv. Can.:
Geological mapping in the southern Canadian Rocky Mountains, 1985-.

90. MONGER, J.W.H., Geol. Surv. Can.:
Geology of the Ashcroft and Hope map-areas, British Columbia, 1980-.

91. REESOR, J.E., Geol. Surv. Can.:
Geology of Nelson map area (E/2), British Columbia, 1979-.

92. RODDICK, J.A., Geol. Surv. Can.:
Coast Mountains project, British Columbia, 1963-.

93. WHEELER, J.O., Geol. Surv. Can.:
Lardeau map area, British Columbia, 1979-.

94. WOODSWORTH, G.J., Geol. Surv. Can.:
Kemano project, British Columbia, 1977-.

MANITOBA/MANITOBA

95. CORKERY, M.T., LENTON, P.G., Manitoba Dept. Energy and Mines (Geol. Services):
Geology of the lower Churchill River area (NTS 64H, 54E, 64A and 64B East Half), Manitoba, 1979-.

Final report and 9 maps ranging from 1:100 000 to 1:250 000 compilations currently under development.

NEW BRUNSWICK/ NOUVEAU-BRUNSWICK

96. GRANT, R., Univ. New Brunswick (Geology):
Carboniferous stratigraphy and structure, southern New Brunswick, Musquash to Pocologan, 1973-; Ph.D. thesis.

97. PHILPOTT, G., DAVIES, J.L., New Brunswick Dept. Forests, Mines, Energy (Geol. Surv. Br.):
Gold potential-northern New Brunswick (metallic minerals project), 1985-89.

Aim in 1985-86 is to compile data on gold occurrences along the Rocky Brook-Millstream Fault, a prominent structure – thought to be a major plumbing system during Silurian-Devonian volcanism.

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

98. ERMANOVICS, I.F., Geol. Surv. Can.:
Archean rocks of the Nain Province in Hopedale (13 N), Snegamook Lake (13 K), and Makkovik (13 O) map-areas, Labrador, 1978-.

99. GOWER, C.F., Newfoundland Dept. Mines and Energy:
Reconnaissance geological mapping in the Grenville Province, eastern Labrador, 1979-.

See:

Geology of the Paradise River region, Grenville Province, Labrador; Geol. Surv. Can., Paper 85-1B, p. 547-560, 1985.

Correlations between the Grenville Province and Sreconorwegian orogenic belt – implications for Proterozoic evolution of the southern margins of the Canadian and Baltic Shields; in The Deep Proterozoic Crust in the North Atlantic Provinces, vol. 158, p. 247-258, 1985.

Mapping coverage toward the interior Grenville Province is continuing. Geochronological studies have firmly established a major crust-forming event at CA. 1670 Ma with uplift of the thrust-bound Lake Melville and Groswater Bay terranes at ca 1030 Ma. and ca 970 Ma respectively. Sapphirine and asumilite were found for the first time in eastern Labrador in 1985.

100. KERR, A., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sciences):
Geology, geochemistry and mineral potential of granitoid rocks in the Trans-Labrador Batholith and eastern central mineral belt, 1985-88.

See:

Intrusive rocks of the eastern central mineral belt: general geology and description of regional granitoid units; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Regional geochemical patterns in the eastern central mineral belt of Labrador; ibid, 1986.

101. NUNN, G.A.G., Newfoundland Dept. Mines and Energy:
Western Grenville project, Labrador, 1985-.

See:

The Atikonak River massif and the surrounding area, western Labrador and Quebec; Newfoundland Dept. Mines and Energy, Paper 86-1, 1986.

A 1650 Ma orogenic belt within the Grenville Province of northeastern Canada; in The Deep Proterozoic Crust in the North Atlantic Provinces, vol. 158, p. 151-161, Reidel, Dordrecth, 1985.

A reassessment of the Grenvillian orogeny in western Labrador; ibid., p. 163-174, 1985.

102. THOMAS, A., KROGH, T.E., DALLMEYER, R.D., CULSHAW, N.G., Newfoundland Dept. Mines and Energy:
Geology of the Winokapau Lake area; Geology of the Lac Ghyeulde – Lac Long area, north-central Grenville Province, Labrador, 1982-87.

A preliminary geological report entitled "Geology of the Winodapau Lake area" is in the review stage and includes a geochemical data base for approximately half of the project area. A second report "Geology of the Lac Ghyuelde – Lac Long area" is in preparation and has reached 30% completion at this time.

103. van BERKEL, J.T., Geol. Surv. Can.:
Geology of the southern Long Range, Newfoundland, 1985-.

104. WARDLE, R.J., Newfoundland Dept. Mines and Energy:
Regional geology of the Goose Bay area, Grenville Province, Labrador, 1983-.

See:

Geology of the Goose Bay-Goose River area, Labrador; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Goose Bay project is in second year of a three year project aimed at delineating the relationship between the Cap Caribou Rive allochthon, the Mealy Mountain anorthosite terrane and a belt of circa 1650 Ma ortho gneisses and paragneisses of the interior Grenville Province.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

105. BOSTOCK, H.H., Geol. Surv. Can.:
Geology of Fort Smith, District of Mackenzie, 1980-.

106. BOSTOCK, H.H., Geol. Surv. Can.:
Geology, Taltson Lake and Fort Resolution (86 H) map-areas, District of Mackenzie, 1985-.

See:

Reconnaissance geology of Precambrian rocks of the Fort Resolution, Taltson Lake, and Fort Smith areas, District of Mackenzie; Geol. Surv. Can., Paper 86-1A, p. 35-42, 1986.

107. CECILE, M.P., Geol. Surv. Can.:
Stratigraphic and structural analysis of Late Paleozic strata in the northern Mackenzie and Selwyn Mountains, 1985-.

108. CHRISTIE, R.L., Geol. Surv. Can.:
Melville project, District of Franklin, 1984-.

See:

The Melville Project, 1984-85: progress report; Geol. Surv. Can., Paper 86-1A, p. 795-799, 1986.

109. CIESIELSKI, A., Geol. Surv. Can.:
Gneissic basement to the Fury and Hecla Formation and the Autridge Formation on Baffin Island, District of Franklin, 1979-.

110. FRASER, J.A., Geol. Surv. Can.:
Geology of Woodburn Lake map area, District of Keewatin, 1980-.

111. FRISCH, T., Geol. Surv. Can.:
Precambrian geology of southeast Ellesmere, Devon and Cobourg Islands, District of Franklin, 1976-.

112. FRISCH, T., Geol. Surv. Can.:
Geology of Montresor River and lower Hayes River map areas, District of Keewatin, 1982-.

113. FRITH, R.A., Geol. Surv. Can.:
Geology of Indian Lake (86 B) map-area, District of Mackenzie, 1972-.

See:

U-Pb ages on zircon from basement granitoids of the western Slave Structural Province, northwestern Canadian Shield; Geol. Surv. Can., Paper 86-1A, p. 113-119, 1986.

114. FRITH, R.A., Geol. Surv. Can.:
Geology of Beechey-Duggan Lakes area, District of Mackenzie, 1980-.

See:

Geochemistry and origin of the Regan Intrusive Suite and other granitoids in the northeastern Slave Province, northwest Canadian Shield; Can. J. Earth Sci., vol. 22, no. 7, p. 1048-1065, 1985.

115. HENDERSON, J.B., Geol. Surv. Can.:
Healy Lake map-area, District of Mackenzie, 1978-.

116. HENDERSON, J.B., Geol. Surv. Can.:
Artilley Lake map area, District of Mackenzie, 1984-.

See:

Artillery Lake map area, District of Mackenzie: a transect across the Thelon Front; Geol. Surv. Can., Paper 86-1A, p. 411-416, 1986.

117. HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Wager Bay "Shear Zone", District of Keewatin, 1985-.

See:

Preliminary account of the geology around Wager Bay, District of Keewatin; Geol. Surv. Can., Paper 86-1A, p. 159-176, 1986.

118. JACKSON, G.D., Geol. Surv. Can.:
Operation Bylot, District of Franklin, 1967-.

119. JACKSON, G.D., Geol. Surv. Can.:
Operation Penny Highlands, District of Franklin, 1969-.

120. LE CHEMINANT, A.N., Geol. Surv. Can.:
Macquoid Lake (W1/2), Thirty Mile and Tebesjuak Lake map-areas, District of Keewatin, 1978-.

121. LE CHEMINANT, A.N., Geol. Surv. Can.:
Geology of Aberdeen Lake and parts of adjoining map areas, District of Keewatin, 1982-.

122. OKULITCH, A.V., Geol. Surv. Can.:
Geology of the Arctic Islands, 1984-.

123. SCHAU, M., Geol. Surv. Can.:
Geology of the Baker Lake map-area, District of Keewatin, 1980-.

124. TELLA, S., Geol. Surv. Can.:
Kamilukuak Lake map-area, District of Keewatin, 1979-.

125. TELLA, S., Geol. Surv. Can.:
Deep Rose Lake and parts of adjoining map areas, District of Keewatin, 1982-.

126. TELLA, S., Geol. Surv. Can.:
Chesterfield Inlet (55 O), and part of Tavani (55 K/9, 16) and Marble Island (55 J/13, 14) map areas, District of Keewatin, 1985-.

127. THOMPSON, P.H., Geol. Surv. Can.:
Tinney Hills (76 J) – Overby Lake (76 I W1/2) map areas, District of Mackenzie, 1983-.

See:

Geology of the Slave Province and Thelon Tectonic Zone in the Tinney Hills – Overby Lake (west half) map area, District of Mackenzie; Geol. Surv. Can., Paper 86-1A, p. 275-289, 1986.

128. TRETTIN, H.P., Geol. Surv. Can.:
Completion of reconnaissance geology, northern Ellesmere Island, District of Franklin, 1973-.

ONTARIO/ONTARIO

129. DRESSLER, B., Ontario Geol. Surv.:
Geological compilation 1:250 000 of Ontario underlain by Proterozoic rocks, 1984-.

130. JENSEN, L.S., Ontario Geol. Surv.:
Petrogenesis and mineralization of the Archean Abitibi Greenstone Belt in the Timmins-Kirkland Lake area, Ontario, 1972-.

See:

Geology and petrogenesis of the Archean Abitibi Belt in the Kirkland Lake area, Ontario; Ontario Geol. Surv., Misc. Paper 123, 1985.

Stratigraphy and petrogenesis of Archean metavolcanic sequences southwestern Abitibi Subprovince, Ontario; Geol. Assoc. Can., Spec. Paper 28, p. 65-87, 1985.

To study the volcanism, sedimentation, plutonism, metamorphism and structural development of the Abitibi Belt through areal mapping, petrography, geochemistry and special projects with various other institutions to determine the petrogenesis of the belt and its relationship to mineralization.

131. THURSTON, P.C., DAVIS, D.W., Ontario Geol. Surv., Royal Ontario Mines (Mineralogy and Geology):
The Wabigoon diapiric axis basement enclave, 1985-87.

See:

Ontario Geol. Surv., Misc. Paper 126, p. 138-142, 1985.

Preliminary U-Pb zircon ages from the Lumby Lake – Marmion Lake area, Districts of Kenora and Rainy River; Ontario Geol. Surv., Misc. Paper 126, p. 135-137, 1985.

Geology and geochronology of a block representing basement of the Wabigoon Subprovince. Work so far suggests this >3 Ma block contains greenstone relics with distinctive sediments and felsic volcanics. The terrane unconformably underlies the Wabigoon volcanics at Atikokan.

QUÉBEC

132. CIESIELSKI, A., Geol. Surv. Can.:
Metamorphism and structure in northeast Superior Province, Québec, 1980-.

133. CIESIELSKI, A., Geol. Surv. Can.:
Etudes des roches Archéennes et Protérozoiques dans la région du Front de Grenville entre Chibougamau et Val d'Or, Québec, 1984-.

Voir:

Le Front de Grenville dans la région de Chibougamau (Québec); Geol. Surv. Can., Paper 85-1B, p. 303-317, 1985.

134. DUBOIS, J-M.M., GWYN, Q.H.J., Université de Sherbrooke (Géographie):
Le Quaternaire de l'Île d'Anticosti, Québec, 1979-87.

See:

Relative sea level fluctuations during the last 35 000 years, northern Gulf of St. Lawrence; Geol. Assoc. Can. – Mineral Assoc. Can., Programme with Abstracts, p. A5, 1985.

Dynamique des écoulements glaciaires wisconsiniens, île d'Anticosti, golfe du Saint-Laurent; ibid., p. A60, 1985.

YUKON TERRITORY/ TERRITOIRE DU YUKON

135. GORDEY, S.P., Geol. Surv. Can.:
Geology of Nahanni map-area, Yukon and Northwest Territories, 1979-.

136. GORDEY, S.P., Geol. Surv. Can.:
Geology of Sheldon Lake (105 J) and Tay River (105 K) map area, east-central Yukon, 1982-.

ENVIRONMENTAL GEOSCIENCE/SCIENCES DE LA TERRE APPLIQUÉES À L'ENVIRONNEMENT

137. BIGRAS, S.C., Environment Canada (National Hydrology Res. Instit.):
Lake regimes, Mackenzie Delta, Northwest Territories, 1982 and 1983, 1980-85.

During the spring and summer of 1985 an intensive field study of the hydrological regime of a variety of lakes and channels was undertaken in the Mackenzie Delta, NWT. This was the fifth year of data collection for a five year research project which was designed to investigate the potential environmental impact that increased flow regulation of the Mackenzie River main stem could have on the hydrological regime of lakes and channels in the Mackenzie Delta.

Water levels and the interaction between unconnected, low- and high-closure lakes, connected lakes and their channel systems are being assessed by monitoring water levels at nine sites along the eastern sector of the Delta from April to September. Field measurements of snowpack water equivalents, lake and channel ice thicknesses, and climatic conditions were also collected.

Preliminary data analysis suggests that spring breakup is the most significant hydrological event of the year. The occurrence of ice jams and backwater flooding during breakup is essential to the replenishment of unconnected, low- and high-closure lakes which otherwise may have dwindled away. Throughout the field season connected lake and channel water level fluctuations paralleled those of the main channels (i.e. Middle Channel and East Channel), whereas unconnected and closure type lakes were rarely influenced by upstream hydroclimatic conditions. If regulation of the Mackenzie River does occur and the amount of water and ice entering the Delta during breakup is significantly reduced, the hydrological regime of the Delta will change. The land to water ratio is likely to increase, altering the ecological nature of the Mackenzie Delta.

A report on the 1982 and 1983 Lake Regimes Study is available, and a progress report on the 1984 field seasons is in preparation.

138. DEVLIN, J.F., GORMAN, W.A., Queen's Univ. (Geological Sciences):
Volatile organic contaminants in groundwater, 1984-86; M.Sc. thesis (Devlin).

See:

The distribution of volatile organic contaminants in a Leachate Plume, Gloucester, Ontario; Proc. Technology Transfer Conf. No. 6, Toronto, Ontario Ministry Environment, Publ. ISSN 0-825-491, p. 47-85, 1985.

To obtain a true sample of groundwater containing volatile organics, and to obtain an accurate analysis. The Gloucester Landfill was used as a test site. The National Hydrology Research Institute (River Road Laboratories), has been extremely helpful in this study.

139. EGGINTON, P.A., Geol. Surv. Can.:
Relationship of flood frequency and heavy metal uptake in growth rings of trees, 1981-.

140. EGGINTON, P.A., Geol. Surv. Can.:
Periglacial processes, Canadian Arctic, 1983-.

See:

Solifluction and related processes, eastern Banks Island, N.W.T.; Can. J. Earth Sci., vol. 22, no. 11, p. 1671-1678, 1985.

141. FORTESCUE, J.A.C., WEBB, J.R., Ontario Geol. Surv.:
The relationship between geochemical and remote sensing data, 1984-86.

See:

A small scale lake sediment geochemical survey, Batchawana Mountain area, Algoma District; Ontario Geol. Surv., Map 80 755, Geochemical Ser., 1985.

Remote sensing as an aid in planning regional geochemical surveys in the Canadian Shield; Abstract in Program of Fourth Thematic Conference, Remote Sensing for Exploration Geology, San Francisco, April 1-4, 1985.

The relationship between geochemical and remote sensing data obtained in the vicinity of Barbarar Lake and Cowie Lake, District of Algoma; Ontario Geol. Surv., Misc. Paper 126, p. 182-185, 1985.

For the second year, work continued on a project which combined remote sensing techniques with multi-parameter lake water/sediment analysis for the purpose of developing a method of identifying lakes affected by acid precipitation in an area north of Sault Ste. Marie, Ontario.

142. GANGLOFF, P., BOUCHARD, A., BERGERON, Y., Université de Montréal (Centre de recherches écologiques de Montréal):
Méthodologie de classification et de cartographie des écosystèmes terrestres, 1980-.

Voir:

Proposition d'une méthodologie d'inventaire et de cartographie écologique: le case de la MRC du Haut Saint-Laurent; Cahiers de géographie du Québec, vol. 29, no. 76, p. 79-96, 1985.

143. JACKSON, L.E., Jr., Geol. Surv. Can.:
Environmental assessment of coal resource development, Canadian Cordilleran, 1977-.

144. JACKSON, L.E., Jr., Geol. Surv. Can.:
Debris flow hazard assessment methodology, alpine and northern upland areas, 1978-.

145. KETTLES, I.M., Geol. Surv. Can.:
Sensitivity of surficial sediments to effects of acid precipitation, 1980-.

See:

Applications of till geochemistry in southwestern New Brunswick: acid rain sensitivity and mineral exploration; Geol. Surv. Can., Paper 85-1B, p. 413-422, 1985.

146. MARSH, P., Environment Canada (National Hydrology Res. Instit.):
River heat flux during spring breakup, 1983-86.

To determine the convective heat flux from the river to the overlying ice cover during the spring breakup period has been conducted near the confluence of the Liard and Mackenzie Rivers in the Northwest Territories. This work has practical implications to river ice growth and decay.

147. MARSH, P., Environment Canada (National Hydrology Res. Instit.):
Water temperature beneath river ice covers, 1983-86.

Detailed measurements of water temperature have been made in the ice covered Liard River, Northwest Territories. The energy sources controlling water temperature have been measured and simulated. A model predicting water temperature, both across the channel and with time, has been developed.

148. MARSH, P., Environment Canada (National Hydrology Res. Instit.):
Hydrologic studies, Mackenzie Delta lakes, 1983-87.

A lake hydrology study to determine the relative importance of the processes controlling lake level is continuing in the Mackenzie Delta, Northwest Territories. A model is being developed to predict changes in lake level. This study has implications for determining the effect of flow regulation in the Mackenzie Basin and for storage time of pollutants entering the lakes.

149. MICHEL, F.A., Carleton Univ. (Geology):
Isotopic investigation of ice formation in frost blisters, North Fork Pass, Yukon, 1981-85.

150. MOORE, R.D., McGill Univ. (Geography):
Integrated hydrological and hydrochemical modelling in a southern Laurentian watershed, 1986.

151. NRIAGU, J.O., HOLDWAY, D., Environment Canada (National Hydrology Res. Instit.):
Sulfur: its forms and isotopic composition in acid sensitive lakes, 1984-87.

152. RASID, H., PHILLIPS, B.A.M., Lakehead Univ. (Geography):
Morphologic instability of floodways: Neebing-McIntyre floodway, Thunder Bay and Assiniboine Diversion, southern Manitoba, 1983-.

See:

Morphologic effects of channelization: the case of the Neebing-McIntyre floodway, Thunder Bay, Ontario, Canada; Environmental Management, vol. 9, p. 399-416, 1985.

Morphologic instability of floodways is considered in relation to hydraulic variables and soil mechanics properties of channel materials of two floodways constructed in relatively erodible glaciolacustrine deposits.

153. RUTHERFORD, G.K., VANLOON, G.W., HERN, J., THACKER, D.J., Queen's Univ. (Geography, Chemistry):
Effects of acid precipitation on two forest soils in eastern Ontario, 1981-84.

See:

Chemical and pedogenetic effects of simulated acid precipitation on two eastern Canadian forest soils. 1. Nonmetals; Can. J. Forest Res., vol. 15, p. 839-847, 1985.

Chemical and pedogenetic effects of simulated acid precipitation on two eastern Canadian forest soils. 2. Metals; Can. J. Forest Res., vol. 15, p. 848-854, 1985.

Two more articles in press.

154. SCHWARCZ, H.P., KRAMER, J.R., McMaster Univ. (Geology):
Stable isotopes in acid rain, 1985.

Variations in sulfur and oxygen isotopic composition of sulfate in acid precipitation will be used to trace source of sulfate. Oxygen isotopes in nitrate will also be studied.

GEOCHEMISTRY/GÉOCHIMIE

ANALYTICAL METHODS AND ANALYSIS/ MÉTHODES ANALYTIQUES ET ANALYSES

155. CHAN, C., Ontario Geol. Surv.:
Determination of carbonate carbon in 41 international geochemical reference samples by coulometric method, 1985-.

The carbonate-carbon (CO_2) content of forty-one geochemical reference samples has been determined by coulometric method following acid treatment of the sample for releasing CO_2. The method is superior to the conventional methods in speed, accuracy, sensitivity, and the coverage of CO_2 range. The precision of the method is 0.5% r.s.d., and the practical detection limit is 10 ppm C. The results on NBS limestone samples agree well with the certified values.

156. EVANS, N.J., CROCKET, J.H., McMaster Univ. (Geology):
Development of a radiochemical neutron activation method for analysis of noble metals in silicate rocks, 1985-; M.Sc. thesis (Evans).

To develop a rapid, simple neutron activation method to analyse for Ir, Pt, Pd and Au at the ppb level in basic and ultrabasic rocks. The procedure involves a fusion dissolution of the irradiated rock sample, precipitation of the noble metal group or tellurium and counting of all radionuclides from the same source on a high resolution, high efficiency intrinsic germanium detector.

157. HUNTLEY, D.J., NISSEN, M.K., THOMSON, J., CALVERT, S.E., Simon Fraser Univ. (Physics); Instit. Oceanographic Services, Univ. British Columbia (Oceanography):
An improved Alpha Scintillation counting method for determination of Th, U, Ra-226, Th-230 excess and Pa-231 excess in marine sediments, 1985.

In a previous paper it was shown that thick-source α-counting is a simple means for determining Th, U, Th-230 excess and Pa-231 excess concentrations, and hence sedimentation rates, for deep-sea sediments. Here it is shown that radon escape can lead to inaccurate results if powdered samples are used and that this problem can be overcome by preparing samples as a borate glass before measurement. Glassed samples also permit a novel measurement of the Ra-226 content by measurement of the post-fusion buildup of Rn-222, a determination shown to be necessary for near-surface sediments that have a deficit of Ra-226. It is also shown that Po-210 is lost during the fusion and that this loss can be allowed for in the calculations.

The above observations are founded on comparisons of measured and calculated α-count rates for several Th and U standard, and with comparisons with α-spectrometry results from four sets of deep-sea core samples.

158. VANDER VOET, A., DOHERTY, W., Ontario Geol. Surv.:
The determination of elemental and isotopic abundances in geological samples by means of inductively coupled plasma – mass spectrometry, 1984-.

Methods are in place for the routine determination of the rare earth elements, thorium, uranium, thallium, and lead. Work progresses on the determination of the precious metals and other "heavy" elements.

EXPLORATION, ORGANIC/ APPLIQUÉE, ORGANIQUE

159. BROOKS, P.W., Geol. Surv. Can.:
Development of extraction, identification and correlation systems for organic compounds from sedimentary rocks and crude oils, 1973-.

160. COHEN, D.R., Queen's Univ. (Geological Sciences):
Biogeochemistry: A geochemical method for gold exploration in the Canadian Shield, 1984-86; M.Sc. thesis (Cohen).

Description of results of a biogeochemical investigation in the Hemlo area. Results indicate biogeochemistry can be successfully used to locate gold mineralization in the area.

161. FEDIKOW, M.A.F., NIELSEN, E., Manitoba Dept. Energy and Mines (Geol. Services):
Vegetation, basal till and peat bog geochemistry in mineral exploration, 1983-.

162. HÉROUX, Y., INRS-Géoressources, Ministère de l'Énergie et des Ressources du Québec:
Altération hydrothermales et potentiel minéral des Groupes d'Honorat et de Matapédia: régions de Carleton et de Saint-André-de-Restigouche, Québec, 1985-87.

Utilisation de la géochimie organique et de la pétrographie de la matière organique pour préciser l'origine des zones d'altération connues, sud de la Gaspésie. Echantillonage completé. Résultats des études de laboratoire attendus.

163. JONASSON, I.R., Geol. Surv. Can.:
Environmental geochemistry, 1974-.

164. MOSSMAN, D.J., KRUMBEIN, W., DYER, B.D., Mount Allison Univ. (Geology):
Nature and origin of stratiform kerogen seams in Lower Proterozoic Witwatersrand-type paleoplacers, 1985-87.

See:

Uranium-bearing stratiform organic matter in paleoplacers of the lower Huronian Supergroup, Elliot Lake-Blind River region, Canada; Can. J. Earth Sci., vol. 22, no. 12, p. 1930-44, 1985 (1986).

The geochemistry of Witwatersrand-type gold deposits and the possible influence of ancient prokaryotic communities on gold dissolution and precipitation; Precambrian Res., vol. 30, p. 303-319, 1985.

Comparison of stratiform kerogens from lower Proterozoic paleoplacers in South Africa, Huronian Supergroup, Jacobina etc., to determine their geochemical nature and paleontological characteristics. Report on results of search for microfossils in these materials and outline problems relevant to studies of process of biomineralization in ancient sediments of this type.

165. MOSSMAN, D.J., NAGY, B., DYER, B.D., FRITZ, P., Mount Allison Univ. (Geology):
Geology of auriferous and uraniferous Witwatersrand-type paleoplacers, 1984-87.

Focus on geochemistry of Au and U in Lower Proterozoic paleoplacers, with particular emphasis on the nature and origin of "thucholites" in these rocks. To assess whether or not some "thucholite" is of organic origin, and if so, determine the geological processes involved in its genesis, and the conditions which led to Au/U becoming concentrated (biogenically?) in it.

166. RAY, G.E., MCCLINTOCK, J., ROBERTS, W., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Tillicum Mountain gold-silver project, British Columbia, 1984-86.

See:

A comparison between the geochemistry of the gold-rich and silver-rich skarns in the Tillicum Mountain area; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-6, p. 37-44, 1986.

Compares the trace element and major element geochemistry of drill holes intersecting the gold rich Hemo-Money Zone and the silver-rich Silver Queen Mine at Tillicum Mountain in southern British Columia.

167. SNOWDON, L.R., Geol. Surv. Can.:
Hydrocarbon geochemistry of Arctic Archipelago and Canadian East Coast offshore, 1976-.

168. SNOWDON, L.R., Geol. Surv. Can.:
Hydrocarbon geochemistry of northern Interior Plains and Beaufort Sea, 1976-.

EXPLORATION, NON-ORGANIC/ APPLIQUÉE, NON-ORGANIQUE

169. BOURGET, A., PERRAULT, G., École Polytechnique (Génie minéral):
Géochimie de la minéralisation aurifère de la mine Kiena, Val d'Or, Québec, 1984-86; M.Sc.A. (Bourget).

Le gîte d'or S-50 a son lien dans une brèche à l'intérieur des formations mafiques et komatiitiques de la formation Jacola. La carbonatisation, la silicification et l'albitisation sont très étendues et centrées sur le gîte. Le gîte S-50 est enveloppé d'un halo d'or à médiane de 300 ppb Au d'une largeur de 120 m dans les épontes supérieures et 20 m dans les épontes inférieures. L'arsenic et l'antimoine marquent aussi la minéralisation aurifère.

170. BUTLER, J., DAVENPORT, P.H., Newfoundland Dept. Mines and Energy:
Geochemical detailed follow-up in western Labrador, 1985.

See:

Geochemical follow-up surveys, Labrador Trough; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

171. COUTURE, B., DARLING, R., École Polytechnique (Génie minéral):
Petrography and geochemistry of the Decoeur-Garon hydrothermal alteration pipe, Rouyn, Quebec, 1982-86; M.Sc.A. (Couture).

172. DAVENPORT, P.H., Newfoundland Dept. Mines and Energy:
Applications of lake sediment geochemical data to mineral exploration and regional geological studies, 1982-.

By the end of 1986, the Province of Newfoundland will be the first in Canada to have complete regional geochemical coverage. This project is to demonstrate potential uses of these data in a variety of fields of geoscience.

173. FEDIKOW, M.A.F., AUGSTEN, B., Manitoba Dept. Energy and Mines (Geol. Services):
Geology, genesis and rock geochemical signature of precious and base metal mineral deposits, Manitoba, 1981-.

174. FLETCHER, W.K., DAY, S., Univ. British Columbia (Geological Sciences):
Disperson and behaviour of gold in drainage sediments, British Columbia, 1985-; M.Sc. thesis (Day).

Dispersion of Au (and other heavy minerals) in streams is strongly influenced by local hydraulic conditions. These introduce considerable variability (noise) into the data. Object of the study is to investigate the processes involved and establish methods of minimizing their influence in interpretation of geochemical data for Au in drainage sediments.

175. FORTESCUE, J.A.C., WEBB, J.R., Ontario Geol. Surv.:
A regional geochemical study of Michipicoten Island, Ontario, 1985-87.

See:

A regional geochemical study of Michipicoten Island; Ontario Geol. Surv., Misc. Paper 126, p. 186-188, 1985.

A regional multi-element lake sediment geochemical study of Michipicoten Island was undertaken in August of this year. Measurements of pH, conductivity, temperature, dissolved oxygen and Seechi depth were recorded, and sediment cores were collected for analysis at 94 sites. The resulting information will be of value in determining any mineral potential that may exist on the island. In addition, the data may reflect interesting environmental patterns with respect to existing data collected previously in the northern shore area of Lake Superior.

176. FOSCOLOS, A.E., Geol. Surv. Can.:
Clay and clay minerals investigation, 1968-.

177. HÉROUX, Y., BEAUDOIN, G., BERGERON, M., TASSÉ, N., INRS-Géoressources, Ministère de l'Énergie et des Ressources du Québec:
Étude lithogéochimique du bassin de l'Assemetquagan, Québec, 1986-87.

Recherche de la source de l'or alluvionnaire connu dans la rivière Assemetquagan. Echantillonage completé. Résultats d'analyse attendus.

178. HORNBROOK, E.H.W., Geol. Surv. Can.:
National geochemical reconnaissance, 1975-.

179. JONASSON, I.R., Geol. Surv. Can.:
Trace elements in sulphides, 1974-.

180. LEVINSON, A.A., BLAND, C.J., KYDD, R.A., Univ. Calgary (Geology and Geophysics, Physics, Chemistry):
Exploration geochemistry – uranium and gold, 1972-.

See:

Non-significant anomalies in the search for uranium in Saskatchewan, Canada; Applied Geochemistry, vol. 1, 1986.

Ammonium halos in lithogeochemical exploration for gold at the Horse Canyon carbonate-hosted deposit, Nevada; ibid., 1986.

181. LOGAN, J., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Geochemical constraints on the origin of Slocan Pb-Zn-Ag veins, British Columbia, 1983-86; M.Sc. thesis (Logan).

See:

Mineralogy and metal distribution, Hallmac Mine, Sandon; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 288-301, 1986.

182. MACINTOSH, J.A., Queen's Univ. (Geological Sciences):
The optimization of geochemical exploration techniques for gold deposits in areas of glacial till, 1985-87.

Aimed at examining the distribution of gold in glacial till associated with a variety of deposit types as a basis for evaluating the effectiveness of currently adopted exploration procedures and also developing improved methods for explorations.

183. MAURICE, Y.T., Geol. Surv. Can.:
Regional geochemistry, northern Canadian Shield, 1976-.

184. MAURICE, Y.T., Geol. Surv. Can.:
Geochemical exploration technology in ultrabasic complexes, 1983-.

185. MAURICE, Y.T., Geol. Surv. Can.:
Heavy mineral studies, Eastern Townships, Québec, 1984-.

See:

A new approach to sampling heavy minerals for regional geochemical exploration; Geol. Surv. Can., Paper 86-1A, p. 301-305, 1986.

Interpretation of a reconnaissance geochemical heavy mineral survey in the Eastern Townships of Quebec; ibid., p. 307-317, 1986.

186. MAURICE, Y.T., Geol. Surv. Can.:
Heavy mineral studies, Gaspé, Québec, 1984-.

187. MCCONNELL, J.W., Newfoundland Dept. Mines and Energy:
Study of lithogeochemistry and surficial geochemistry associated with peralkaline and metalliferous granitoid terranes in Labrador, 1985-86.

See:

Exploration geochemical studies of Labrador granitoids; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Field work in 1985 involved the collection of rock, soil, lake sediment/water and stream sediment/water for geochemical analyses from granitoid terrane in Labrador. Work was done in areas which are considered to have high potential for hosting granite-related mineralization such as tin, tungsten, R.E.E., niobium, beryllium and zirconium.

188. MCNUTT, R.H., PREVEC, S., McMaster Univ. (Geology):
Rb/Sr and Sm/Nd geochronology and initial ratio studies of a gabbro complex, Grenville Province, Labrador, 1985; M.Sc. thesis (Prevec).

189. MCTAGGART, K.C., KNIGHT, J., Univ. British Columbia (Geological Sciences):
Trace elements in gold, 1980-.

See:

Composition of placer and lode gold in the Fraser River Drainage area, B.C.; Can. Geol. J., C.I.M.M., vol. 1, no. 1, p. 21-30, 1986.

190. NICHOL, I., BREE, D.R., Queen's Univ. (Geological Sciences):
Partitioning of gold in humus as a key to understanding gold dispersion in humus; M.Sc. thesis (Bree):

An examination of the distribution of gold amongst the humin, humic and fulvic components of humus, as an indicator of the provenance of gold in humus.

191. NICHOL, I., SHAU, J., MACCLENAGHAN, M.B., Queen's Univ. (Geography, Geological Sciences):
Quaternary geology and geochemical exploration in the Matheson area, Ontario; 1986-88.

Involves an examination of the Quaternary succession in the Matheson area of Northern Ontario with a view to improving the effectiveness of geochemical exploration in the area.

192. PERRAULT, G., TANER, M.F., École Polytechnique (Génie minéral):
Étude de la dispersion de l'or autour des gîtes aurifères région de Lamaque-New Pascalis, Val d'Or, Québec, 1983-85.

Voir:

Prospection pour l'or par la mesure des distributions or, région de Noranda – Val d'Or, Québec; dans la géochimie d'exploration au Québec, DV-85-11, p. 51-66, 1986.

Plusieurs roches du secteur de Val d'Or contiennent beaucoup d'or: la granodiorite de Bourlamaque, les pyroclastites de la formation de Val d'Or. Il est possible que les gîtes d'or soient créés par une remobilisation de cet or. Projet terminé.

193. RAY, G.E., SHEARER, J.T., NIELS, R.J.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Coquihalla gold belt project, British Columbia, 1981-86.

See:

The Geology of the Carolin Mine Gold Deposit in southwestern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 99, 100, 1986.

Describing the geology, geochemistry and mineralogy of the sulphide-albite-quartz-gold mineralization at Carolin Mine.

194. ROGERS, P.J., Nova Scotia Dept. Mines and Energy:
Follow-up geochemistry, 1984-89.

To assess, investigate and determine the geochemical nature of regionally defined anomalies in the secondary environment of Nova Scotia and to develop new mineral exploration methodologies, by conducting follow-up and orientation studies involving various sample media such as humus, soil, sediments, till, well water and pan concentrates. 1984/85 Pictou project interrupted by death of principal investigator, 1985/86 samples submitted for analysis with well water. Orientation studies on heavy mineral sampling conducted in northern Nova Scotia.

195. SABOURIN, J., DARLING, R., École Polytechnique (Génie minéral):
Study of humus geochemistry near Barren & sulfide-bearing conductors, Chibougamau region, Québec, 1986-88; M.Sc.A. (Sabourin).

196. SABOURIN, L., METHOT, Y., TRUDEL, P., PERRAULT, G., École Polytechnique (Génie minéral):
Études de le batholite, Flavarian, et mine d'or Eldrich, Noranda, Québec, 1985-86.

La principale phase du batholite de Flavarian est une trodjhémite. Elle contient environ 2 à 3 ppb Au. La minéralisation aurifère à la mine Eldrich occupe des fractures. La diffusion de l'or depuis les fractures est presque nulle; seules les veines les plus puissantes montrent une diffusion de l'or par la porosité de la roche.

197. SHEEP, G.S., NICHOL, I., Queen's Univ. (Geological Sciences):
Geochemical exploration for gold, 1984-86; M.Sc. thesis (Sheep).

See:

Geochemical exploration for gold; Ontario Geol. Surv., Misc. Paper 127, p. 124-135, 1985.

Involved an examination of the distribution of gold in till associated with gold deposits in Northern Ontario and drew attention to some potential shortcomings in current exploration methodology.

198. TANER, M.F., PERRAULT, G., École Polytechnique (Génie minéral):
Distribution de l'or autour du gîte Sigma-2, région de Val d'Or, Québec, 1984-86.

Les mesures provisoires montrent que le gabbro du sill de Vicour contient environ 15 ppb Au; le granophyre associé en continent la même quantité. Donc l'or n'a pas été concentré dans l'évolution gabbro à granophyre.

199. VALIQUETTE, G., BELLEHUMEUR, C., IREM, Ministère de l'Énergie et des Ressources du Québec:
Lithogéochimie des Calcaires Supérieurs de Gaspé, Québec, 1985-88.

Tentative de charactériser et de corréler par leur composition chimique les différents niveaux des Calcaires Supérieurs de Gaspé, y inclus les niveaux minéralisés aux Mines Gaspé. Echantillonage de plusieurs coupes et carottes completé. Résultats d'analyses attendus.

200. VERPAELST, P., SIMARD, A., GAULIN, R., GAGNÉ, P., LABELLE, P., Ministère de l'Énergie et des Ressources du Québec:
Stratigraphie et géochimie des roches volcaniques du Groupe de Blake River à l'ouest de Rouyn-Noranda, Québec, 1984-.

Voir:

Stratigraphie et géochimie des roches volcaniques du Groupe de Blake River à l'ouest de Rouyn-Noranda. La géochimie d'exploration au Québec; Ministère de l'Énergie et des Ressources du Québec, DV 85-11, p. 67-72, 1985.

201. WAITZENEGGER, B., DARLING, R., École Polytechnique (Génie minéral):
Petrography and geochemistry of altered wallrocks, Ferderber ore zone, Belmoral mine, Val d'Or, Québec, 1984-86; M.Sc.A. (Waitzenegger).

202. WARREN, H.V., HORSKY, S.J., Univ. British Columbia (Geological Sciences):
Biogeochemistry of thallium, an aid to mineral prospecting, 1985-86.

Early results have shown the usefulness of arsenic and mercury as "pathfinders" related to major faults. Thallium has been shown to be even more useful and we have now several biogeochemical tools to aid in searching for precious and base metal deposits.

203. WARREN, H.V., HORSKY, S.J., Univ. British Columbia (Geological Sciences):
Platinum in pollen, a possible new cancer treatment, 1985-86.

The development of carboplatin in June of 1985 has suggested that organic compounds of platinum may replace cisplatin, which has unacceptable side effects in the treatment of some cancers.

204. WARREN, H.V., HORSKY, S.J., BARASKO, J.J., Univ. British Columbia (Geological Sciences):
The biogeochemistry of silver, 1984-85.

Although this work commenced in 1984 it was carried on well into 1985. A more complete paper has now been finished and submitted for publication with the C.I.M.M.

GENERAL/GÉNÉRALITÉS

205. BAADSGAARD, H., DAY, L.W., Univ. Alberta (Geology):
Mechanism and nature of the diagenetic recrystallization and transformation of potash salts in the Prairie Evaporite, Saskatchewan, 1984-.

Br and alkali analysis of various types of salts shows both equilibrium and disequilibrium in salt recrystallization processes. In-situ replacement is a common process, but the mechanisms are yet poorly understood.

206. BALLANTYNE, S.B., Geol. Surv. Can.:
Regional geochemistry – southern Cordillera, 1979-.

207. BARAGAR, W.R.A., Geol. Surv. Can.:
Stratigraphy and geochemistry of the volcanic rocks of the Circum-Ungava Belt, District of Keewatin, 1978-.

208. BARRETT, T.J., Univ. Toronto (Geology):
Fe-rich sediment on land and undersea, 1984-86.

See:

Sediment redeposition in Archean Fe-Formation: Examples from the Beardmore-Geraldton Greenstone Belt, Ontario; J. Sedimentology Petrol., vol. 55, p. 205-212, 1985.

Future work includes sedimentological and geochemical studies on sulfide facies Fe-Formation in Ontario and New Brunswick and sediment-hosted Cu-Pb-Zn mineralization in the Labrador Trough, Quebec.

209. BOYLE, D.R., Geol. Surv. Can.:
Groundwater geochemistry in mineral and hydrocarbon exploration, 1983-.

210. BRAND, U., Brock Univ. (Geological Sciences):
Fossil and carbonate diagenesis, 1980-.

211. BRAND, U., Brock Univ. (Geological Sciences):
Shell chemistry of terrestrial gastropods from Florida and Bonaire, 1984-86.

212. BRAND, U., Brock Univ. (Geological Sciences):
Petrology, cathode petrography and geochemistry of the Irondequoit Formation, southern Ontario and western New York, 1986-.

213. BRAND, U., Brock Univ. (Geological Sciences):
Fossil geochemistry and paleooceanography, 1986-.

See:

Trace element and stable isotope diagenesis of fossils: paleoenvironmental applications; Geol. Assoc. Can. – Mineral Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 47, 1986.

214. BRAND, U., MORRISON, J., Brock Univ. (Geological Sciences):
Facies geochemistry and paleooceanography of the Upper Cretaceous Western Interior Seaway of North America, 1984-86; M.Sc. theses (Morrison).

See:

Paleooceanography of the Upper-Mid Cretaceous Interior Seaway of Canada; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 104, 1986.

215. BRAND, U., TERASMAE, J., WASSENAAR, L., Brock Univ. (Geological Sciences):
Biogeochemical and paleoecological investigation of marine molluscs of Late Pleistocene submergences, Ontario, Quebec and British Columbia, 1984-86; M.Sc. thesis (Wassenaar).

See:

Paleoecological and paleooceanographical analysis of marine molluscs from the Champlain Sea, eastern Ontario and Quebec; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 142, 1986.

Paleoenvironmental corrections for the isotopic compositions of invertebrates from glacio-marine environments; ibid., p. 142, 1986.

216. BROOKFIELD, M., ASARO, F., ALVAREZ, W., GOODINGS, C., Univ. Guelph (Land Resource Science), Univ. Waterloo (Earth Sciences):
Sedimentology and geochemistry across Permo-Trias and Cretaceous-Tertiary boundaries in India; M.Sc. theses (Goodings).

217. CAMERON, E.M., Geol. Surv. Can.:
Isotopic geochemistry, Precambrian mineralized basins, District of Mackenzie and Ontario, 1980-.

218. CHATTERJEE, A.K., STRONG, D.F., Nova Scotia Dept. Mines and Energy, Memorial Univ. (Earth Sciences):
Mineral deposits – Nova Scotia, 1985.

See:

Review of some chemical and mineralogical characteristics of granitoid rocks hosting Sn, N, U, Mo deposits in Newfoundland and Nova Scotia; IMM-HHP Granite Symp., p. 489-516, 1985.

Geochemical characteristics of the polymetallic tin domain, southwestern Nova Scotia; in Granite Related Mineral Deposits, CIM Conf., p. 41-52, 1985.

219. CORMIE, A., SCHWARCZ, H.P., LUZ, B., McMaster Univ. (Geology):
Stable isotope studies of deer bones and paleoclimate, 1982-86; Ph.D. thesis (Cormie).

D/H ratios in collagen reflect changes in D/H in environmental water, although humidity also has influence. $^{18}O/^{16}O$ of phosphate in bones also varies with water isotope ratios. Combined isotope studies allow reconstruction of meteoric water composition.

220. DICKIN, A.P., McMaster Univ. (Geology):
Sr, Nd and Pb isotopic study of the petrogenesis of Neogene minettes from Colorado, 1986.

221. DICKIN, A.P., McMaster Univ. (Geology):
Sr, Nd and Pb isotopic study of Magma mixing in the Elk Head Mountain unit, Colorado, 1986.

222. DYCK, W., Geol. Surv. Can.:
Disequilibrium in the uranium series, 1978-.

See:

Uranium and other trace and minor element concentrations in surface rocks and stream sediments from the Cypress Hills, Saskatchewan; Geol. Surv. Can., Paper 85-1B, p. 23-31, 1985.

223. ELLWOOD, D.J., Geol. Surv. Can.:
Automated geochemical cartographic development, 1975-.

224. FUZESY, L.M., Saskatchewan Geol. Surv.:
Geology of the Winnipegosis and Dawson Bay formations and its relationship to the potash beds of the Prairie Evaporite in the Bredenbury-Esterhazy-Rocanville-St. Lazare area, Saskatchewan, 1985-87.

225. GOFF, S.P., GODFREY, J.D., Alberta Research Council (Geol. Surv.):
Geochemical-petrological study of the Canadian Shield, northeastern Alberta, 1981-85.

Petrogenesis of major rock groups – granitoids, gneisses, amphibolites, metasediments and mylonites – under examination. Derivation of average crustal composition based on areal mapping, chemical and mineralogical analyses. Numerical data to be processed for multivariate analysis and discriminating analysis of major and trace elements.

226. GOODFELLOW, W.D., Geol. Surv. Can.:
Regional geochemistry, Yukon Territory, 1977-.

227. GOODFELLOW, W.D., Geol. Surv. Can.:
Geochemistry of mineral occurrences and their host rocks in the Northern Cordillera, 1979-.

228. GOODWIN, A.M., PADGHAM, W.A., Univ. Toronto (Geology), Indian Affairs and Northern Development (NAP) Canada:
Rare earth geochemistry of some Slave Province volcanic belts, 1985-88.

Transects of the High Lake volcanic belt was sampled in August 1985.

229. JAMIESON, H., LYDON, J.W., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
Geochemistry of a fossil ore-solution reservoir at Agrokipia, Cyprus.

230. JOHNSON, W.M., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Regional geochemical survey, 1976-.

To generate regional geochemical data for the Province with an average sample density of one sample every 13 square km. The data will be used for mineral exploration, land use planning and environmental studies.

231. KING, R.H., Univ. Western Ontario (Geography):
Identification of the raw materials used in the manufacture of archaeological ceramics in southwestern Cyprus, 1983-88.

See:

Origin and significance of the clay fraction in the soils of southwestern Cyprus; Program Abstracts, Assoc. American Geographers, p. 329, 1985.

In the course of an extensive archaeological survey of the Paphos District in southwestern Cyprus undertaken by the Canadian Palaipaphos Survey Project a large amount of ceramic material from the Neolithic through to the present day has been collected. Much of this material is in a poor state of preservation and the frequent absence of stylistic features has made identification difficult. Instead of using stylistic characteristics to classify the material an attempt has been made to create a typology based on geochemical compositional variations, specifically REE and trace elements as determined by neutron activation analysis. The result is a typology which appears to reflect the use of essentially local source materials in the manufacture of the ceramics. Unfortunately, although there is a comparative abundance of clay materials in the study area, extremely little is known about the mineralogy and composition of this material. To this end, the composition and mineralogy of the clay-sized material is being charcterized and the results compared with that of the ceramic sample set collected by the CPSP in order to identify the source of the raw materials used in the manufacture of the ceramics.

232. LANGFORD, F.F., RENAUT, R.W., BOYS, C., BROWN, R.H., Univ. Saskatchewan (Geological Sciences):
Nature, origin and predictability of geological anomalies in the potash mines of Saskatchewan, 1986-1989; M.Sc. thesis (Boys).

Project funded under the Canada-Saskatchewan Mineral Development Agreement and includes, under seperate contract, a bibliographic compilation of all available geological data in the potash mining company files and a compilation of geological anomaly distribution maps.

233. LEVINSON, A.A., Univ. Calgary (Geology and Geophysics):
Environmental geochemistry, 1978-.

See:

The mineralogy of human urinary stones from Calgary, Quito and Honolulu; American Mineralogist, vol. 70, p. 630-635, 1985.

Seasonal variations in the incidence of kidney stones in Calgary, Alberta, Canada; Clinical Nephrology, vol. 24, p. 50-51, 1985.

234. MAURICE, Y.T., Geol. Surv. Can.:
Lithogeochemical studies, Gaspé Peninsula, Québec, 1984-.

235. MCNUTT, R.H., FRANKLYN, M., McMaster Univ. (Geology):
$^{87}Sr/^{86}Sr$ ratios of brines and associated host rocks, Atikokan, Ontario, 1985; M.Sc. thesis (Franklyn).

236. MCNUTT, R.H., FRAPE, S., FRITZ, P., McMaster Univ. (Geology), Univ. Waterloo (Earth Sciences):
$^{87}Sr/^{86}Sr$ ratios in brines, associated elements and host rocks from Paleozoic strata, southwestern Ontario, 1985.

237. MCNUTT, R.H., FRITZ, F., FRAPE, S., McMaster Univ. (Geology), Univ. Waterloo (Earth Sciences):
$^{87}Sr/^{86}Sr$ ratios of brine from deep bore holes on the Precambrian Shield of Canada, 1982-.

238. MCMILLAN, W.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Rare earth element distribution in rocks and minerals of the Guichon Creek Batholith, British Columbia, 1985-86.

To determine: 1) interrelation of diorite to quartz monzonite of the Guichon Creek batholith with porphyry Cu-Mo deposits within the batholith; 2) develop criteria for discriminating ore-forming granitic rocks; and 3) improve understanding of physiochemical processes of formation in Highland Valley porphyry Cu-Mo deposits.

239. RAY, G.E., SPENCE, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Tillicum Mountain gold-silver project, British Columbia, 1984-86.

See:

The potassium-rich volcanic rocks at Tillicum Mountain – their geochemistry, origin and regional significance; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 86-1, p. 45-49, 1986.

Describes the geochemistry of the shoshonitic mafic volcanic rocks which host the gold-silver skarn mineralization at Tillicum Mountain. These rocks are correlated with the Rossland Group (Lower Turassic) on the basis of their geochemistry.

240. SCHWARCZ, H.P., BLUM, N., CROCKET, J.H., McMaster Univ. (Geology):
Oxygen isotope geochemistry of Archean banded iron formation , 1982-86; Ph.D. thesis (Blum).

See:

Geological and geochemical studies of the Boston and Temagami iron formations and their contiguous volcano sedimentary piles; Ontario Geol. Surv., Misc. Paper 132, p. 72-83, 1984.

Oxygen isotope ratios in BIF from Kirkland Lake and Temagami have been used to estimate temperatures of metamorphism and isotope composition of seawater.

241. SCHWARCZ, H.P., IVANAUSKAS, D., BUHAY, W., McMaster Univ. (Geology):
Cyanide/thiocyanate in gold ores, 1983-; M.Sc. thesis (Buhay).

Determination of concentration levels of cyanide or thiocyanate in quartz from veins in gold deposits by colorimetric analysis of leachates. Concentrations in bulk quartz range up to 1500 ppb SCN.

242. SCHWARCZ, H.P., REES, C.E., McMaster Univ. (Geology):
Sulfur isotope variations in gold ore deposits, 1984-86.

S-isotope ratios vary widely between individual Au deposits but are fairly uniform within a single deposit.

243. SHAW, D.M., HIGGINS, M.D., McMaster Univ. (Geology):
Studies of boron geochemistry in meteorites, 1984-.

244. SHAW, D.M., HIGGINS, M.D., TRUSCOTT, M.G., McMaster Univ. (Geology):
Studies of boron geochemistry in lunar rocks, 1986-.

245. SHAW, D.M., HIGGINS, M.D., TRUSCOTT, M.G., GRAY, E., McMaster Univ. (Geology):
Studies of boron geochemistry in terrestrial rocks and minerals, 1982-.

246. SHAW, D.M., TRUSCOTT, M.G., McMaster Univ. (Geology):
Geochemistry of rocks in the Kapuskasing Structural Zone, Ontario, 1983-.

247. SMITH, P.K., Nova Scotia Dept. Mines and Energy:
Meguma gold: gold and associated mineral deposits in the Meguma Terrane of southern Nova Scotia, 1985.

See:

Antimony – gold potential of the C-1 Diamond drill hole; Nova Scotia Dept. Mines and Energy, Information Ser. No. 9, p. 53-55, 1986.

To examine the whole rock and mineral geochemistry of the gold districts in the Cambro-Ordovician Meguma Group of southern Nova Scotia.

248. STEGER, H.F., BOWMAN, W.S., SUTARNO, R., SMITH, C.W., EMR (CANMET):
Canadian certified reference materials project, 1978-.

See:

RL-1: a certified uranium reference ore; CANMET Rept. 85-4E, 1985.

Validation of accuracy by interlaboratory programme; Talanta, vol. 32, no. 11, p. 1088-1091, 1985.

The certification of uranium ore RL-1 and gold ore MA-1a were completed in this period. Measurement projects for candidate reference materials MA-2a and MA-3 (gold ores) and OKA-2 (britholite ore) were completed. OKA-2 has been tentatively selected by the International Atomic Energy Agency for the production of a gamma-ray spectrometer calibration material for thorium (RGTh-1).

249. SUSAK, N.J., PAN, PUJING, Univ. New Brunswick (Geology):
Mobilization of cobalt in ore-forming solutions, 1982-; Ph.D. thesis (Pan).

See:

A spectrophotometric study of cobalt (II) chloride complexes in Aqueous Solutions: Ligand Field Bands and Octahedral-Tetrahedral coordination equilibria in solutions up to 5 m NaCl and 90°C; Geol. Assoc. Can. – Mineral Assoc. Can. Program with Abstracts, vol. 10, p. A46, 1985.

To obtain reliable thermodynamic data for cobalt complexes in aqueous solutions up to 300°C. Work is in progress on spectrophotometric studies at elevated temperatures. Solubilities of Co-CoO assemblages will begin shortly. A study of the dissolution kinetics of CoO is in progress.

250. TAYLOR, B.E., Geol. Surv. Can.:
Light stable isotope geochemistry of rock and ore-forming processes, 1985-.

251. THORPE, R.I., Geol. Surv. Can.:
Lead isotopic studies on genesis of ore deposits, 1978-.

See:

U-Pb geochronology of the Coldwell Complex, northwestern Ontario: discussion; Can. J. Earth Sci., vol. 23, no. 1, p. 125-127, 1986.

Age relationships form U-Th-Pb isotope studies of uranium mineralization on Wernecke breccias, Yukon Territory; Geol. Surv. Can., Paper 86-1A, p. 385-391, 1986.

252. TOD, J., Newfoundland Dept. Mines and Energy:
VLF-EM investigations, 1985-89.

See:

VLF-EM investigations in Insular Newfoundland; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Two projects investigated the use of VLF-EM as a mapping tool. The first was aimed at tracing out a drift-covered contact, and the second at evaluating the interpretive utility of airborne VLF-EM data.

253. VAN EVERDINGEN, R.O., KROUSE, H.R., MICHEL, F.A., Environment Canada (National Hydrology Res. Instit.), Univ. Calgary, Carleton Univ. (Geology):
Isotope geochemistry of sulfates in subsurface waters, 1985-87.

See:

Isotope composition of sulphates generated by bacterial and abiological oxidation; Nature, vol. 315, no. 6018, p. 395-396, 1985.

Oxygen- and sulfur-isotope geochemistry of acidic groundwater discharge in British Columbia, Yukon and District of Mackenzie, Canada; Can. J. Earth Sci., vol. 22, no. 11, p. 1689-1695, 1985.

GEOCHRONOLOGY/GÉOCHRONOLOGIE

254. ARCHIBALD, D.A., FARRAR, E., Queen's Univ. (Geological Sciences):
Tectonothermal history of the southern Kootenay Arch and Purcell Anticlinorium, southeastern British Columbia, 1976-.

255. ARCHIBALD, D.A., FARRAR, E., Queen's Univ. (Geological Sciences):
An isotopic study of granitoid rocks associated with W-skarn, Selwyn Mountains, Yukon and Northwest Territories, 1985-.

256. ARCHIBALD, D.A., FARRAR, E., CARMICHAEL, D.M., JOURNEAY, J.M., Queen's Univ. (Geological Sciences):
An isotopic study of the west flank of Frenchman's Cap dome, southeastern British Columbia, 1983-86.

257. ARCHIBALD, D.A., FARRAR, E., CLARK, A.H., SEAL, R.R., Queen's Univ, (Geological Sciences), Univ. Michigan:
An K-Ar and $^{40}Ar/^{39}Ar$ study of the Lake George antimony deposit, southern New Brunswick, 1983-86; M.Sc. thesis (Seal).

258. ARCHIBALD, D.A., FARRAR, E., HANES, J.A., Queen's Univ. (Geological Sciences):
An $^{40}Ar/^{39}Ar$ study of the Kapuskasing Structural Zone, northern Ontario, 1979-86.

259. ARCHIBALD, D.A., FARRAR, E., HELMSTAEDT, H., HALL, D., SCHULZE, D., Queen's Univ. (Geological Sciences):
An $^{40}Ar/^{39}Ar$ investigation of the age of kimberlites and the thermal history of their xenoliths, southeastern British Columbia, 1985-.

260. ARCHIBALD, D.A., FARRAR, E., IRVING, E., WOODSWORTH, G.J., Queen's Univ. (Geological Sciences), Pacific Geoscience Centre, Geol. Surv. Can.:
$^{40}Ar/^{39}Ar$ thermal and paleomagnetic studies of the Smith Island Gabbro, British Columbia, 1985-86.

261. ARCHIBALD, D.A., FARRAR, E., MOUNTJOY, E., Queen's Univ. (Geological Sciences), McGill Univ. (Geological Sciences):
A K-Ar and $^{40}Ar/^{39}Ar$ study of metamorphic rocks near the Purcell thrust, southeastern British Columbia, 1983-86.

262. ARCHIBALD, D.A., TAYLOR, R., FARRAR, E., Queen's Univ. (Geological Sciences), Carleton Univ. (Geology):
$^{40}Ar/^{39}Ar$ study of the Mount Pleasant area, New Brunswick, 1985-.

The results of step-heating experiments suggest that mineralization occurred in Late Devonian time and that the area experienced a low-temperature re-heating event in Jurassic time.

263. ARMSTRONG, R.L., ERDMAN, L., MUHLENBACHS, K., Univ. British Columbia (Geological Sciences), Univ. Alberta (Geology):
Vancouver Island-Lithoprobe I geochronometry and petrochemistry, 1980-86.

See:

The Neogene Alert Bay Volcanic Belt of northern Vancouver Island; Volcanology and Geothermal Res., vol. 26, p. 75-97, 1985.

U-Pb, Rb-Sr, $\delta^{18}O$, and chemistry completed in 1985. Data analysis in progress.

264. ARMSTRONG, R.L., PARRISH, R.R., MORTENSEN, J., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Omineca Belt geochronometry, British Columbia, 1975-.

See:

The Anvil plutonic suite, Faro, Yukon Territory; Can. J. Earth Sci., vol. 22, p. 1204-1216, 1985.

Petrology, chemistry, and radiogenic isotope (K-Ar, Rb-Sr, and U-Pb) study of the Emerald Lake pluton, eastern Yukon Territory; Geol. Surv. Can., Paper 85-1B, p. 347-359, 1985.

Completion of zircon dating of Trail Gneiss, Mantling Gneiss of Monashee Complex, Castlegar Gneiss, Grand Forks Gneiss, and Vaseau Formation. Nd model ages for the same units plus Core Gneiss, Quesnel Gneiss, and Valhalla Gneiss. Completion of major synthesis in 1986-87.

265. ARMSTRONG, R.L., SUN, R., AGYEI, E., Univ. British Columbia (Geological Sciences), Peking Univ., Univ. Ghana:
Precambrian geochronometry in China and Africa, 1983-86.

Rb-Sr dating of Archean of North China is completed. Rb-Sr and K-Ar dating of West Africa rocks is complete, Sm-Nd dating of the same suite in progress.

266. ARMSTRONG, R.L., VAN DER HEYDEN, P., JUNG, J., FRIEDMAN, R.M., MORTIMER, N., Univ. British Columbia (Geological Sciences):
Intermontane Belt – southern British Columbia: age and isotopic composition of major batholiths, 1975-.

See:

Geology of the mid-Cretaceous volcanic units near Kingsvale, southwestern British Columbia; Geol. Surv. Can., Paper 85-1B, p. 333-339, 1985.

Age of magnetization of the Axelgold Gabbro, north-central British Columbia; Can. J. Earth Sci., vol. 22, p. 1217-1222, 1985.

Multiple-geochronometry studies of samples representative of all major bodies are planned. Much of the work will be in cooperation with GSC or University research projects.

267. ARMSTRONG, R.L., VAN DER HEYDEN, P., WOODSWORTH, G.J., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Southern Coast Plutonic Complex – ages and isotopic composition, 1975-.

Work is concentrated in the Vancouver-Hope-Lilloett triangle and concerned with the timing of Mesozoic accretion and provenance of Precambrian zircon in rocks of that region.

268. BAADSGAARD, H., Univ. Alberta (Geology):
Rb-Sr, K-Ca, K-Ar systematics of the Devonian Potash salts in the Prairie Evaporite, Saskatchewan, 1974-.

The diagenetic history of the salts can be outlined using the geochronologic methods. This history is found to be complex and related to tectonic up-lift and depression of the area.

269. BAADSGAARD, H., CAVELL, P.A., ODIN, G., Univ. Alberta (Geology):
A U-Pb time scale date for the Silurian bentonite beds in Gotland, Sweden, 1986.

Several zircon separates have been obtained from stratigraphically well-located Silurian bentonite horizons. A U-Pb time scale date will be measured.

270. BAADSGAARD, H., DAY, L.W., GODFREY, J.D., Univ. Alberta (Geology):
Nd-Sm dating of the derived rocks of the shield in northeastern Alberta – part of the major project: Geochronology of the northeastern Alberta Shield area, 1957-87.

The Nd-Sm dating of the area will complete a geochronologic study of the rocks in the Alberta shield area.

271. BAADSGAARD, H., ERDMER, P., Univ. Alberta (Geology):
The age and tectonic history of a Grenville inlier – northwestern Newfoundland, 1985-87.

Initial results indicate late Acadian granites intruding a main body of Grenville rocks.

272. BAADSGAARD, H., LERBEKMO, J.F., MCDOUGALL, I., Univ. Alberta (Geology):
A time-scale date for the Cretaceous-Tertiary boundary in western North America, 1979-86.

The final data is being completed for a three-location study of the age of the K/T boundary in Western N. America. K-Ar, U-Pb and Rb-Sr methods are all combined to give the final age for bentonite minerals.

273. BAADSGAARD, H., LONGSTAFFE, F.J., AYALON, A., Univ. Alberta (Geology):
The age of diagenesis of the clay fractions in the Belly River Shale, Alberta, 1985-87.

The sorting out of diagenetic day products has enabled time limits to be placed on some of the diagenetic processes. Isotope ratios also indicate possible sources of fluids for the diagenetic process.

274. BAADSGAARD, H., NUTMAN, A.P., MCGREGOR, V.R., BRIDGWATER, D., Univ. Alberta (Geology):
Geochronology of the Nuk-II gneisses – Buksefjord area, West Greenland, 1985-87.

The time of the second major crustal-forming event in West Greenland, is stretched out over two distinct episodes. The delineation of the second episode and its correlation with the regional tectonics is important to understand the present disposition of the Archean rocks.

275. BAADSGAARD, H., WIJBRANS, J., MCDOUGALL, I., LERBEKMO, J.F., Univ. Alberta (Geology):
A time-scale age for the "Tree-stump" horizon in the Snake-bite section, southern Saskatchewan, 1985-86.

K-Ar on biotite and sanidine, Pb-Sr on biotite and feldspar and U-Pb on zircon give a good date for the "tree-stump" horizon in the Upper Cretaceous Snake-bite section in southern Saskatchewan.

276. BAADSGAARD, H., YANAGI, T., MCDOUGALL, I., STELCK, C.R., Univ. Alberta (Geology):
A time-scale date for the tuff bed in the Middle Albion Hulcross Shale, Hudson Hope, British Columbia, 1985-86.

U-Pb on zircon, Rb-Sr and K-Ar on biotite and feldspar give a time scale age for the Middle Albian.

277. BERGER, G.W., Simon Fraser Univ. (Physics):
Thermoluminescence dating of glacio-lacustrine sediments, 1985-.

See:

Thermoluminescence dating study of rapidly deposited silts from south-central British Columbia; Can. J. Earth Sci., vol. 22, no. 5, p. 704-710, 1985.

Thermoluminescence dating applied to a thin winter varve of the late glacial South Thompson silt, south-central British Columbia; Can. J. Earth Sci., vol. 22, no. 11, p. 1736-1739, 1985.

278. BOWRING, S.A., PADGHAM, W.A., Washington Univ. St. Louis, Indian Affairs and Northern Development (NAP) Canada:
Geochronology of Slave Province volcanic belts, 1982-.

Samples for dating have been collected from the Yellowknife High Lake and Anialik River volcanic belts (and associated granitoids).

279. BROOKFIELD, M., REYNOLDS, P., Univ. Guelph (Land Resource Science), Dalhousie Univ. (Geol.):
Argon dating of Karnkorum rocks, northwestern Indian and Pakistan, 1980-86.

280. CHARUSIRI, B., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
Geochronological deliminitation of main lithophile-metal metallogenetic epochs, southeastern Asian Tin Belt, 1985-; Ph.D. thesis (Charusiri).

Despite an abundance of K-Ar and Rb-Sr age data, there is little agreement regarding the major epochs of hypogene W and Sn mineralization in this classic province. Our aim is to provide such data through detailed K-Ar and particularly, $^{40}Ar/^{39}Ar$ dating of ore deposits.

281. CLARK, A.H., FARRAR, E., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
The timing of tungsten and tin mineralization, Korea, 1979-86.

282. CORFU, F., Royal Ontario Mus. (Mineralogy and Geology), Ontario Geol. Surv.:
Geochronology and isotopic relations in the Ontario Archean.

Geochronology studies jointly with OGS geologists on Archean problems. Work to appear shortly on the Batchewana, Red Lake, and North Spirit areas.

283. EASTON, R.M., CORFU, F., KROGH, T.E., DAVIS, D.W., Ontario Geol. Surv., Royal Ontario Mus.:
Isotopic age compilation map of Ontario, 1983-.

See:

Geochronology compilation map of Ontario, Sheet 1: Southern Ontario; Grenville Province and environs, K-Ar and Ar-Ar isotopic systems; Ontario Geol. Surv. Prel. Map P.2840, 1986.

Geochronology compilation map of Ontario, Sheet 2: Southern Ontario; Grenville Province and environs, Rb-Sr, Nd-Sm, U-Pb, and other isotopic systems; ibid., Prel. Map P.2841, 1986.

Geochronology compilation map of Ontario, Sheet 3: east-central Ontario; Prel. Map P.2842, 1986.

Geochronology compilation map of Ontario, Sheet 4: west-central Ontario; Prel. Map P. 2843, 1986.

Geochronology compilation map of Ontario, Sheet 5: northwest Ontario; Prel. Map P.2844, 1986.

Correlation of geochronologic events in eastern North America: insights from a new geochronology compilation for Ontario and the Grenville; Geol. Soc. Amer., Program with Abstracts, vol. 18, p. 14, 1985.

Geochronology of the Grenville Province, Part 1: Compilation of Data and Part 2: Overview and Synthesis; Geol. Ass. Can., Spec. Paper 31, 1986.

Most material from this compilation has now been published. Data compilation is computer accessible (IBM-AT) and will be updated on a regular basis. Compilation covers Ontario and adjacent areas of Manitoba, Quebec, Minnesota, and New York State near the Ontario border.

284. FRANCE, L., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
Geochronology, stratigraphy and petrochemistry of the Upper Tertiary volcanic arc, southernmost Peru, central Andos, 1983-85; M.Sc. thesis (France).

285. GERASIMOFF, M.D., DIXON, J.M., FARRAR, E., Queen's Univ. (Geological Sciences):
U-Pb and K-Ar system geochronology of the Hobson Lake Pluton, associated intrusives and Shuswap metamorphic events, 1983-86; M.Sc. thesis (Gerasimoff).

To calibrate the timing of plutonic, structural and metamorphic events on the northeastern margin of the Shuswap Metamorphic Complex at Hobson Lake (Wells Gray Provincial Park), British Columbia – comparison with previous studies there and elsewhere in Shuswap.

286. GERASIMOFF, M.D., FARRAR, E., DIXON, J.M., KROGH, T.E., Queen's Univ. (Geological Sciences):
Timing of intrusive, metamorphic and structural events in the Hobson Lake area, British Columbia, 1984-.

287. GRUN, R., SCHWARCZ, H.P., FORD, D.C., McMaster Univ. (Geology):
ESR dating of speleothem, 1985.

Electron spin resonance (ESR) is being used to date speleothems which are too old to be dated by U-series. Samples from Canadian Rockies and Europe.

288. HANES, J.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of Sept-Iles Anorthosite, Quebec, 1985-.

289. HANES, J.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ thermochronometry of Mont Laurier Syenites, Grenville Province, 1985-.

290. HANES, J.A., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of diabase dyke swarms in the Wawa-Kapuskasing-Abitibi Transect of the Canadian Shield, 1984-.

291. HANES, J.A., CLARK, S.J., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
Uplift and cooling history of the Elzevir Pluton in the Grenville Province by $^{40}Ar/^{39}Ar$ thermochronometry, 1983-; M.Sc. thesis (Clark).

292. HANES, J.A., HODGSON, C.J., WONG, L., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of gold mineralization in Sigma Mine, Quebec, in the Archean Abitibi greenstone belt, 1984-; M.Sc. thesis (Wong).

293. HEAMAN, L.M., MACHADO, N., KROGH, T.E., WEBER, W., Royal Ontario Mus. (Mineralogy and Geology), Manitoba Dept. Energy and Mines (Geol. Services):
Geochronology of Northwest Superior Province and Churchill-Superior Boundary, Manitoba, 1984-89.

294. HEINRICH, S.M., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
Tertiary tectonic and thermal evolution of the Cordillera Real, Bolivia, 1984-; M.Sc. thesis (Heinrich).

Field mapping and sample collection for geochronological studies were undertaken in the Zongo region this past summer. Fission track and $^{40}Ar/^{39}Ar$ step-heating analyses will be used to elucidate the tectono-thermal evolution of this complex region.

295. HUNTLEY, D.J., GODFREY-SMITH, D.I., Simon Fraser Univ. (Physics):
Optical dating of sediments, 1984-; Ph.D. thesis (Godfrey-Smith).

296. HUNTLEY, D.J., KIRKEY, J.J., PRESCOTT, J.R., HUTTON, J.T., Simon Fraser Univ. (Physics), Adelaide Univ. (Physics):
Thermoluminescence dating of a sequence of stranded beach dunes in southeastern South Australia, 1982-.

297. KARROW, P.F., GEDDES, R.S., Univ. Waterloo (Earth Sciences), Ontario Geol. Surv.:
Drift carbonate, northern Ontario, 1985-.

Drift carbonates on the Shield have been sampled between Sudbury and Lake Nipigon. Their presence and abundance are of concern for radiocarbon dating of lake sediments on the Shield.

298. MACDONALD, R., LEWRY, J.F., BELL, K., BIKERMAN, M., BLENKINSOP, J., BICKFORD, M.E., VAN SCHMUS, R., Saskatchewan Geol. Surv., Univ. Regina (Geological Sciences), Univ. Carleton (Geology), Univ. Kansas (Geology):
Regional tectonic and geochronological studies in northern Saskatchewan; compilation geology maps at 1:250 000 scale.

A variety of regional studies in the Precambrian area of Saskatchewan. A number of papers are in process with co-authors which relate regional geology, tectonics and age determinations.

299. MARMONT, S., Ontario Geol. Surv.:
Applications of age dating to gold mineralization, 1983-86.

300. MARMONT, M., YORK, D., Ontario Geol. Surv. Univ. Toronto (Physics):
Applications of Ar^{39}/Ar^{40} to dating of gold mineralization in the Archean, 1984-86.

301. MATHEWS, W.H., ROUSE, G.E., Univ. British Columbia (Geological Sciences):
Neogene basalts, southern interior of British Columbia, 1983-.

Early Pleistocene glacial beds as well as basalt has been found along with late Tertiary basalts.

302. MCNUTT, R.H., SHAW, D.M., HEAMAN, L., McMaster Univ. (Geology):
Geochronology in Grenville age rocks, comparison of Rb/Sr and Zircon U/Pb methods, 1981-; Ph.D. thesis (Heaman).

303. RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Harrison Lake gold project, British Columbia, 1981-86.

See:

Gold associated with a regionally developed Mid-Tertiary Plutonic event in the Harrison Lake area, southwestern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 95-97, 1986.

20 to 25 Ma diorite plutons lying on a northerly trending lineament in southern British Columbia and northern Washington State are associated with gold ± bismuth mineralization.

304. RUSSELL, R.D., Univ. British Columbia (Geophysics and Astronomy):
Inversion of lead isotope data.

305. SCHWARCZ, H.P., McMaster Univ. (Geology):
Uranium-series dating of prehistoric archaeological sites, 1975-.

Absolute age measurement of travertines and speleothems associated with archeological sites in Belgium, France, Italy, Germany, Greece, Israel, Lebanon, England, and elsewhere.

306. SYME, E.C., ZWANZIG, H.V., BAILES, A.H., BALDWIN, D.A., GORDON, T.M., HUNT, P.A., STEVENS, R.D., Manitoba Dept. Energy and Mines (Geol. Services), Geol. Surv. Can.:
Geochronology in the southern Churchill Province, 1982-.

To determine precise, U-Pb zircon ages for major magmatic and metamorphic units in the portion of the "Trans-Hudson Orogen" comprising the Lynn Lake, Rusty Lake and Flin Flon metavolcanic belts and the Kisseynew metasedimentary gneiss belt.

307. TUREK, A., Univ. Windsor (Geology):
Geochronology of Island Lake area, and geochronology of the Michipicoten Greenstone Belt, 1981-85.

308. TUREK, A., CARSON, T.M., SMITH, P.E., VAN SCHMUS, W.R., WEBER, W., Univ. Windsor (Geology), Univ. Toronto (Geology), Univ. Kansas, Manitoba Dept. Energy and Mines (Geol. Services):
Geochronology of Island Lake greenstone belt, Manitoba, 1981-86.

309. VAN BREEMEN, O., Geol. Surv. Can.:
Isotopic age determinations and radiogenic trace element studies of rocks and minerals, 1983-.

310. VAN DER HEYDEN, P., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
Geochronology and tectonics of the Coast Plutonic Complex between 53°N and 55°N, 1984-; Ph.D. thesis (van der Heyden).

Isotopic dating of plutonic, metamorphic and structural events across the Coast Plutonic Complex (at 53° to 55° North Latitude).

GEOLOGICAL COMPUTER APPLICATIONS/APPLICATIONS DE L'INFORMATIQUE À LA GÉOLOGIQUE

311. AMBROSE, E., Ontario Geol. Surv.:
Computer software for geological applications, 1984-.

See:

Ontario Geol. Surv., Misc. Paper 126, 1985.

Mainly plotting routines for chemical and structural data; work to begin on petrogenetic modelling programs.

312. CHUNG, C.F., Geol. Surv. Can.:
Development of computer-based statistical techniques applicable to regional geological and mineral deposit data, 1975-.

See:

Statistical treatment of geochemical data with observations below the detection limit; Geol. Surv. Can., Paper 86-1B, p. 141-150, 1985.

313. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
A computer program for the determination of molecular norms for fine-grained and altered rocks of the Bob Creek area, British Columbia, 1985-.

See:

British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 124, 125, 1986.

314. GRUNSKY, E.C., Ontario Geol. Surv.:
Precambrian lithogeochemical studies, 1985.

Application of multivariate statistics (factor analysis, dynamic cluster analysis) to alteration systems in Archean metavolcanic rocks.

315. LYTTLE, N., DEMONT, G., FROTTEN, G., MCINTYRE, A., Nova Scotia Dept. Mines and Energy:
Drillholes and mineral occurrences databases.

316. LYTTLE, N., GILLESPIE-WOOD, J., WILKINSON, D., FROTTEN, G., MACDONALD, D., Nova Scotia Dept. Mines and Energy:
GEOSCAN applications.

See:

Index to assessment reports 1984; Nova Scotia Dept. Mines and Energy, Rept. 85-2, 1985.

Index to publications, open file reports, and open file maps for 1984; Nova Scotia Dept. Mines and Energy, Rept. 85-3, 1985.

317. MACGILLIVRAY, J.R., Alberta Research Council (Geol. Surv.):
Information geology.

To maintain a data base of geologic references on the geology of Alberta.

318. MARTINI, I.P., Univ. Guelph (Land Resource Science):
Computer enhanced teaching in Geology, 1985.

VITAL (Telidon-derived) technique and COSY (electronic conferencing and mailing system) have been combined and used for teaching introductory geology courses, and as 'refresher' material for higher courses.

319. NICHOLS, B., Geol. Surv. Can.:
Digital single-channel seismic data acquisiton system, 1984-.

320. TESKEY, D.J., Geol. Surv. Can.:
Development of regional geophysical data processing and interpretation methods, 1982-.

See:

Comparison of MAGSAT and low-level aeromagnetic data over the Canadian Shield: implications for GRM; Can. J. Earth Sci., vol. 22, no. 9, p. 1241-1247, 1985.

321. TROOP, D.G., HODGSON, C.J., Ontario Geol. Surv.:
Statistical analysis of geological features of gold deposits in the Timmins-Kirkland Lake area, Ontario, 1983-86.

Application of correlation and variance analysis and multiple linear regression to geological and economic variables contained within a computerized data file.

322. WILCOX, A.F., BORSHOLM, C.B., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
MINFILE, 1977-.

See:

MINFILE; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 231-233, 1986.

The database contains approximately 9000 occurrences at the present time. MINFILE is currently undergoing a redesign on a VAX 11-750 mini-computer.

GEOMATHEMATICS/MATHÉMATIQUE DE LA TERRE

323. AGTERBERG, F.P., Geol. Surv. Can.:
Probability models for estimating mineral potential and for geoprocessing, 1969-.

See:

Use of multiple regression for pertophysical characterization of granites as a function of alteration; Geol. Surv. Can., Paper 85-1B, p. 451-458, 1985.

324. BERGER, G.W., Simon Fraser Univ. (Physics):
Regression and error analysis techniques for dating unheated sediments by thermoluminescence (TL), 1985-.

In conjunction with R. Lockhart of the Mathematics Dept., a procedure of error analysis using maximum likelihood methods has been adapted and applied to Quaternary sediments.

325. BONHAM-CARTER, G.F., Geol. Surv. Can.:
Geomathematical applications in the integration of geoscience map data, 1983-.

326. GRADSTEIN, F.M., Geol. Surv. Can.:
Quantitative stratigraphy in paleooceanography and petroleum basin analysis, 1985-.

327. STANELY, C.R., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Stochastic modelling of geochemical anomaly recognition techniques; Ph.D. thesis (Stanley).

Programming of modeling algorithms underway; some modeling just commenced.

328. ZODROW, E.L., Univ. College of Cape Breton (Geology):
The prediction of sulfur content in Cape Breton's coals, 1982-.

Data from trace-elemental study of Cape Breton's coals is used to model the sulfur distribution in coal samples to derive a model based on regression analysis as a logical extension of factor analysis. This combination of statistical methods quite emphatically illuminates the pitfalls when using only regression (or trend-surface) techniques to predict sulfur in Cape Breton's coals.

GEOMORPHOLOGY/GÉOMORPHOLOGIE

329. BIRD, J.B., CARSON, M.A., ALGUS, M., McGill Univ. (Geography):
The process of cliff modification in arctic environments, 1976-; Ph.D. thesis (Algus).

A study of geomorphic changes in bluffs developed in Quaternary sediments, Kivitoo Peninsula, Baffin Island has been completed.

330. BIRD, J.B., NURSE, L., McGill Univ. (Geography):
Historical changes of coral shorelines in Barbados, 1982; Ph.D. thesis (Nurse).

A sediment budget for beaches behind coral reefs is being developed to analyse morphological changes since settlement and to predict influence of rising sea level.

331. CLARK, A.H., FARRAR, E., TOSDAL, R.M., Queen's Univ. (Geological Sciences):
Uplift chronology of central Andean Orogen, 1966-.

Geochronologically – delimited landform chronologies have been defined for several transects of the Cordillera Occidental, permitting a preliminary broad synthesis of uplift and, hence, crustal thickening, histories.

332. DIONNE, J-C., BRODEUR, D., LAVOIE, J., BÉLANGER, C., Université Laval (Géographie):

Évolution des rives du Saint-Laurent, 1982-; thèse de doctorat (Brodeur, Bélanger), thèse de maîtrise (Lavoie).

Voir:

Les formations glacielles des rivages du Saint-Laurent; GEOS, vol. 14, no. 2, p. 23-25, 1985.

Formes, figures et faciès sédimentaires glaciels des estrans vaseux des régions froides; PALEO, vol. 51, no. 1, p. 415-451, 1985.

Observations sur le quaternaire de la rivière Boyer, côte sud de l'estuaire du Saint-Laurent; Géographie Physique et Quaternaire, vol. 39, no. 1, p. 35-46, 1985.

Tidal marsh erosion by geese, St. Lawrence estuary, Québec; ibid., p. 99-105, 1985.

Drift ice abrasion marks along rocky shores; J. Glaciology, vol. 31, no. 109, p. 237-241, 1985.

L'érosion anthropique des marais intertidaux du Saint-Laurent; Proceedings, Canadian Coastal Conference-1985 St. John's, Newfoundland, p. 547-568, 1985.

333. DIONNE, J-C., FILION, L., MICHAUD, Y., BÉGIN, C., ST-CYR, N., QUINTY, F., Université Laval (Géographie):
Évolution de versants en milieu froid, 1983-87; thèse de maîtrise (Michaud, Bégin, St-Cyr, Quinty).

334. DUBOIS, J-M.M., Université de Sherbroke (Géographie):
Les régions naturelles du Québec: sections des Cantons de l'Est et de la Côte Nord du Saint-Laurent, Québec, 1984-85.

Voir:

Plaine côtière de la Haute Côte Nord et de la Moyenne Côte Nord; Min. Loisir, Chasse et Pêche, Québec, 1985, 21 p.

Monts Sutton; Min. Loisir, Chasse et Pêche, Québec, 1985, 19 p.

Montagnes frontalières; Min. Loisir, Chasse et Pêche, Québec, 1985, 19 p.

Plateau appalachien; Min. Loisir, Chasse et Pêche, Québec, 1985, 25 p.

Plaine côtière de la Basse-Côte-Nord; Min. Loisir, Chasse et Pêche, Québec, 1985, 26 p.

335. DUBOIS, J-M.M., LESSARD, G., Université de Sherbrooke (Géographie):
Géomorphologie et évolution littorale de la Côte Nord du Saint-Laurent et de l'île d'Anticosti, Québec, 1976-86.

Voir:

Géomorphologie d'une plate-forme littorale rocheuse de régions froides/île d'Anticosti, golfe du Saint-Laurent; Photo interprétation, no. 85-2, 1985.

336. FORBES, D.L., Geol. Surv. Can.:
Morphology, sedimentology, and dynamics of Newfoundland coast, 1981-.

337. FOSTER, H.D., Univ. Victoria (Geography):
Disaster mitigation, 1972-.

See:

Risk and recreation: scientific evaluation; Park News, vol. 21, no. 3, p. 11-14, 1985.

To reduce life loss and injury from natural hazards. Continuation of views expressed in H.D. Foster "Disaster planning: the preservation of life and property", Springer Verlag: New York 1980, 275 p.

338. FOX, J.C., Alberta Research Council (Geol. Surv.):
Aggregate resources of NTS 74D/13 (Ruth Lake), Alberta, 1985-86.

339. FOX, J.C., Alberta Research Council (Geol. Surv.):
Sand and gravel resources of the Bistcho Lake (northern three quarters, 84M) and Steen River (west half, 84N), Alberta, 1985-86.

340. FOX, J.C., Alberta Rsearch Council (Geol. Surv.):
Sand and gravel resources of the Poplar Creek area, Alberta (NTS 74D/13), 1985-86.

341. GANGLOFF, P., Université de Montréal (Géographie):
Les séquences morphogénétiques du Québec, 1978-.

Voir:

Note sur un site de macrorestes végétaux tardiglaciaires; Géographie physique et Quaternaire, vol. 39, no. 1, p. 85-90, 1985.

342. GARDNER, J.S., JONES, N., MATTSON, E., ROZENDAAL, B., BAJEWSKY, I., RADZIUNAS, L., Univ. Waterloo (Geography):
Sediment storage and transfer in a glaciated mountain watershed, 1982-86; Ph.D. thesis (Jones), M.A. theses (Mattson, Rozendaal, Bajewsky, Rodziunas).

See:

Evidence for a Neoglacial advance of the Boundary Glacier, Banff National Park, Alberta; Can. J. Earth Sci., vol. 22, no. 11, p. 1753-1755, 1985.

To produce an integrated sediment budget for a typical high mountain watershed. Sediment storage occurs in mountain – top detrital, debris slopes, glacier, moraines, fluid-glacial deposits, fluvial deposits, and lacustrine deposits. Transfer agents include: gravity (mass wasting processes), glacier, wind and streams.

343. GEURTS, M-A., DEWEZ, V., Université d'Ottawa (Géographie):
Palynostratigraphie et variations climatiques du tardiglaciaire et du postglaciaire, 1984-86.

Voir:

Le paysage végétal holocène dans la région d'Escape Rapids. Territoires du Nord d'Ouest; Géographie physique et Quaternaire, vol. 39, no. 2, 1985.

Le Pingo d'Aishihik (S.O. Yukon) caractères morphogénétiques et cadre temporel; Géographie physique et Quaternaire, vol. 39, no. 3, 1985.

Les deux articles apportent une contribution à la connaissance géomorphologique et palynostratigraphique, respectivement dans les Territoires du Nord Ouest et au Sud Ouest du Yukon.

344. GILBERT, R., LEMMEN, D., HORVATH, V., NEUMAN, C.M., DALE, J., GLEW, J., HOLLOWAY, A., CRAWFORD, B., Queen's Univ. (Geography):
Glaciolacustrine and glaciomarine environments, 1982-; M.Sc. theses (Lemmen, Horvath, Holloway, Crawford), Ph.D. theses (Neuman, Dale, Glew).

See:

Quaternary glaciomarine sedimentation interpreted from seismic surveys of fiords on Baffin Island; Arctic, vol. 38, p. 271-280, 1985.

A portable percussion coring device for lacustrine and marine sediments; J. Sedimentary Petrology, vol. 55, p. 607-608, 1985.

Reconnaissance study of proglacial Stewart Lakes, Baffin Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 505-510, 1985.

Observations on rafting of pebbles by algae in the littoral zone of McBeth Fiord, Baffin Island; in Sedimentology of Arctic Fiords Experiment, vol. 2, Can. Data Report Hydrographic Sci., p. 8-1 to 8-7, 1985.

Coarse particles in the sediments of Cambridge, McBeth and Itirbilung Fiords; ibid., p. 9-1 to 9-25, 1985.

Preliminary observations on cores from Cambridge and Itirbilung Fiords; ibid., p. 10-1, to 10-21, 1985.

Observations at Pangnirtung Fiord; ibid., p. 3-1 to 3-7, 1985.

Studies are ongoing to examine glaciomarine and lacustrine processes in lakes in western and arctic Canada, and in fiords in the eastern Arctic. Specific work includes assessment of the effects of jokulhlaups on glacial lake sediment, the differences in sedimentary environments of temperature and arctic glacial lakes, sedimentary processes in arctic fiords, animal/sediment relations in arctic glaciomarine settings, the contribution of aeolian sediments to glaciomarine deposits, and the role of sea ice in sedimentary processes of glaciomarine intertidal environments.

345. GREENWOOD, B., MCGILLIVRAY, D.G., Univ. Toronto (Geography, Geology):
Numerical modelling of time-averaged longshore sediment transport, 1980-; Ph.D. thesis (McGillivray).

A numerical simulation model is being developed to predict time-averaged shore-parallel transports along any shoreline. The core of the model is an improved wave-transformation package coupled to a synthetic wave climate model. The model is being calibrated using the Toronto Waterfront as a prototype.

346. GREENWOOD, B., SHERMAN, D.J., BAUER, B.O., GHIONIS, G., OSBORNE, P., Univ. Toronto (Geography, Geology):
Nearshore sedimentary dynamics and morphodynamics, 1980-; Ph.D. thesis (Bauer), M.Sc. theses (Ghionis, Osborne).

Field experimentation designed to monitor fluid and sediment velocity vectors over rhythmic topographies in the nearshore zone is aimed at a better understanding of the origins and development of bar topography and beach cusps.

347. GWYN, Q.H.J., HÉTU, B., Université de Sherbrooke (Géographie):
Hydrogéologie et hydrogéomorphologie de la dissolution des roches carbonatées au nord du golfe du Saint-Laurent, Québec, 1981-86.

Voir:

Phénomènes karstiques et périglaciaires dans un lac à niveau variable de l'île d'Anticosti; Z. Fur Geom., vol. 29, p. 353-365, 1985.

La morphogénèse de la caverne à la Patate, île d'Anticosti, Québec; Géogr. phys. Quater., vol. 39, p. 67-75, 1985.

348. JOHNSON, P.G., Univ. Ottawa (Geography):
Glacier ice-cores rock glaciers, Dalton Range, southwestern Yukon, 1985-87.

Determination of age of movement of lobes of rock glaciers and their relation to periods of glacier advance. Causes of small rock glaciers generated from the termini of the ice cored rock glaciers.

349. JOHNSON, P.G., KASPER, J., Univ. Ottawa (Geography):
Hydrology of glacierized basin, Kaskawulsh Glacier, St. Elias Mountains, 1986-89; M.A. thesis (Jasper).

Measurement of the components of the hydrological balance of a small basin containing one surging glacier, one stagnant glacier, one quiescent surge type glacier. Comparison of the hydrological regimes and study of the history of ice dammed lake at mouth of basin.

350. JOHNSON, P.G., KODYBKA, R.J., LACASSE, D., Univ. Ottawa (Geography):
Pleistocene and Holocene glacial history of the Ruby Range and the Dalton Range, southwestern Yukon, 1983-87; Ph.D. thesis (Kodybka), M.A. thesis (Lacasse).

Ph.D. research of R.J. Kodybka on the Pleistocene glaciation of the Ruby Range using trace element techniques should be completed 1986. Results indicate very complex ice flow patterns resulting from changes in ice sources and effects of bed topography. D. Lacasse M.A. thesis on the Holocene glaciations as delimited by moraines and rock glacier lobes in the Ruby Range and Dalton Range should be completed by end of 1986.

351. KING, R.H., YOUNG, R.B., Univ. Western Ontario (Geography):
Micromorphology of periglacial sediments, 1985-87; M.Sc. thesis (Young).

Micromorphologic analysis is being carried out on a series of bulk sediment samples from a variety of geomorphic features associated with ground ice segregation and relatively slow mass movement processes found in the Truelove Lowlands of northeastern Devon Island, NWT. The object is to identify diagnostic micromorphologic features associated with the reorganization of soil n aterials by specific periglacial processes

352. LAPOINTE, M.F., Environment Canada (National Hydrology Res. Instit.):
Patterns and processes of channel change: the fluvial dynamics of Mackenzie Delta channels; 1983-86.

See:

Aspects of channel bathymetr ' and migration patterns in the Mackenzie Delta, N.W.T.; Cold Regions Sec. National Hydrology Res. Instit., 1985.

1985-1986 progress reports are in preparation. 1986 field work will focus on unusual deep scour holes in many of the relatively small distributary channels, and on the general bathymetry of these sandy-mud bedded channels. These aspects are of potential relevance to pipeline crossings, etc.

353. LAURIOL, B., Université d'Ottawa (Géographie):
Géomorphologie des massifs calcaires du nord du Yukon, 1983-.

L'objectif général est de reconstituer les paléoenvironnements de l'Holocène et du Pleistocène à partir des dépôts organiques, chimiques sédimentaires trouvés dans les cavernes du nord du Yukon.

354. LAVALLE, P.D., HANSON, G., Univ. Windsor (Geography):
Shoreline monitoring at Point Pelee National Park, Ontario, 1978-87; M.A. thesis (Hanson).

See:

Shoreline erosion control program at the Northeast Beach Point Pelee, Ontario, Canada; Resource Allocation Issues in the Coastal Environment (Arlington, Virginia. The Coastal Society), p. 289-305, 1985.

Coastal management of the north shore of Lake Erie, Am. Assoc. Geographers, Field Trip Guide, p. 55-68, 1985.

355. MACPHERSON, J.B., DYER, A.K., Memorial Univ. (Geography):
Palynological investigations, Newfoundland, 1982-; M.Sc. thesis (Dyer).

See:

Further evidence of late glacial climatic fluctuations from Newfoundland: pollen stratigraphy from a north coast site; Geol. Surv. Can., Paper 85-1B, p. 383-390, 1985.

1) The definition of the time of deglaciation of interior central Newfoundland, and the search for datable evidence of ice extent. 2) Establishment of post-glacial vegetation history of area, and comparison with Avalon Peninsula; evidence of Holocene climatic change.

356. MAHANEY, W.C., BARENDREGT, R.W., VORTISCH, W., BOYER, M.G., SCHONHERR, R., York Univ. (Geography):
Mount Kenya Quaternary history project; Ph.D. thesis (Schonherr).

See:

Some microbiological aspects of surface and buried soils on Mt. Kenya; Plant and Soil, vol. 86, p. 309-319, 1985.

357. MCLELLAN, A.G., Univ. Waterloo (Geography):
Land rehabiliation – future landscapes.

See:

Government regulatory control of surface mining operations – new performance guideline models for progressive rehabilitation; J. Landscape Mining, vol. 12, p. 15-28, 1985.

358. PROVENCHER, L., DUBOIS, J-M.M., MAILHOT, P., Université de Sherbrooke (Géographie):
Géomorphologie des littoraux lacustres et fluviaux, 1980-86.

Voir:

Où s'arrête le rivage lacustre?; Geos., vol. 14, p. 6-11, 1985.

359. ROBERTS, M.C., WILLIAMS, H.F.L., Simon Fraser Univ. (Geography):
The internal architecture of the Fraser Delta, 1984-87; Ph.D. thesis (Williams).

See:

Sedimentary framework of the Fraser River Delta, B.C.: preliminary field and laboratory results; Geol. Surv. Can., Paper 85-1A, p. 717-722, 1985.

Deposition facies and evolution of the Lulu Island topset deposits, Fraser Delta, B.C.; Geol. Surv. Can., Paper 86-1A, p. 559-564, 1985.

360. SCAFE, D., SHAM, P., Alberta Research Council (Geol. Surv.):
Sand and gravel resources of the Peerlas Lake (south half of 84B) and Lesser Slave Lake (north half of 83O) map areas, Alberta, 1985-86.

361. SMITH, D., Univ. Saskatchewan (Geography):
Geomorphology of turf-banked solifluction lobes in the Alberta Rocky Mountains, Canada, 1977-85.

To establish the present-day and historical character of solifluction mass wasting in high alpine landscapes of the Canadian Rockies. Most of this down-slope movement is confined to the upper 35 cm of sediment, where the average rate of surface movement is 0.62 cm/yr. Radiocarbon records from beneath two solifluction lobes demonstrates that solifluction processes have been continuously active, although at varying rates, for at least the last 4000 years in this area.

GEOPHYSICS/GÉOPHYSIQUE

ELECTRICAL/MÉTHODES ÉLECTRIQUES

362. BARLOW, R.B., PITCHER, D.H., Ontario Geol. Surv.:
Night Hawk geophysical test range, Ontario, 1981-.

See:

Night Hawk geophysical test range results, District of Cochrane; Ontario Geol. Surv., Misc. Paper 126, p. 170-177, 1985.

During the 1985 field season, the Night Hawk geophysical test range near Timmins, Ontario was utilized for testing, research and instruction purposes by personnel from industry, university and government. Section staff carried out field work using an ELFAST RTX/HL-30 electromagnetic system based on a standard large loop, fixed-source Turam principle. In addition, coverage was obtained using a recently modified MAXMIN III electromagnetic system. Complete grid coverage over the conductive feature was obtained to permit contouring of assorted parameters.

363. DYCK, A.V., Geol. Surv. Can.:
Borehole geophysics (electrical and magnetic techniques), 1976-.

364. PITCHER, D.H., Ontario Geol. Surv.:
Electromagnetic studies in the Black River-Matheson (BRIM) area, Ontario, 1983-86.

See:

A correlation of airborne and ground electromagnetics with sonic drilling results in the Black River-Matheson (BRIM) area, District of Cochrane; Ontario Geol. Surv. Can., Misc. Paper 126, p. 336-340, 1985.

The 1984 drill sites and stratigraphic information resulting from the BRIM overburden drilling program were used to determine the effectiveness of specific airborne and ground electromagnetic methods for identifying areas of deep overburden and for exploring the potential of electromagnetic methods for mapping stratigraphic sections. Both airborne and ground electromagnetic techniques have considerabe potential for mapping Quaternary deposits over resistive bedrock. Electromagnetic instrumentation is rapidly becoming available so that measurements, with high precision and accuracy, can be made on the spectrum of responses associated with rather complex overburden stratigraphy. An equal requirement exists at present for field studies directed at improving our ability to interpret these complex signatures.

365. RUSSELL, R.D., COVER, K.S., Univ. British Columbia (Geophysics and Astronomy):
Electrometer, 1983-.

Electrode free measurement of electric fields.

366. SINHA, A.K., Geol. Surv. Can.:
Evaluation of two deep sounding E.M. systems, 1981-.

See:

Deep electromagnetic mapping of sedimentary formations in southern Ontario; Geol. Surv. Can., Paper 85-1B, p. 199-204, 1985.

367. SLAWSON, W.F., WATANABE, T., Univ. British Columbia (Geophysics and Astronomy):
Use of power harmonics for geophysical studies, 1980-.

Currently modifying real-time spectrum analyser for field use. Will monitor lines (B.C. Hydro) on Vancouver Island in active earthquake zone (Gold River ⇔ Campbell River) to look for secular changes in underlying earth resistivity which may be associated with precursory earthquake phenomena.

EXPLORATION/PROSPECTION

368. CHARBONNEAU, B.W., Geol. Surv. Can.:
Regional interpretation of gamma-ray spectrometry, 1984-.

See:

Gold occurrence in radioactive calc-silicate float at Sandybeach lake, Nueltin Lake area, District of Keewatin; Geol. Surv. Can., Paper 86-1A, p. 803-808, 1986.

369. COFLIN, K.C., Univ. Calgary (Geology and Geophysics):
Effects of causal absorption on vibratory seismic signals, 1983-85; M.Sc. thesis.

370. FORD, K.L., Geol. Surv. Can.:
Applications of gamma-ray spectrometry, 1984-.

371. GRASTY, R.L., Geol. Surv. Can.:
Gamma-ray spectrometry (technique development), 1972-.

372. KARROW, P.F., GREENHOUSE, J.P., PEHME, P., ROSS, L., Univ. Waterloo (Earth Sciences):
Geophysical characterization of Quaternary materials, 1979-; M.Sc. theses (Pehme, Ross).

373. MACNAB, R.F., Geol. Surv. Can.:
East coast offshore survey, 1973-.

374. RUSSELL, R.D., NAROD, B.B., MAXWELL, M.G., GHOMSHEI, M., Univ. British Columbia (Geophysics and Astronomy):
Piezoelectrical and mechanoelectrical exploration, 1985-.

Development of piezoelectrical exploration method and examination of piezoelectric effect as related to crystal structure of quartz.

GEOMAGNETISM-PALEOMAGNETISM/ GÉOMAGNÉTISME-PALÉOMAGNÉTISME

375. AJAKAIYE, D.E., HALL, D.H., ASHIEKAA, J., SEABROOK, R., Ahmadu Bello Univ., Zaria, Nigeria, Univ. Manitoba (Earth Sciences):
Aeromagnetic interpretation in the central crystalline shield and the Benue trough, Nigeria, 1981-.

See:

Interpretation of aeromagnetic data across the central crystalline shield area of Nigeria; Geophysical J.R. astro. Soc., vol. 83, no. 2, p. 503-517, 1985.

Crustal structure and tectonic trends have been derived, which are related to global tectonic features and to economic targets.

376. BOWER, M.E., Geol. Surv. Can.:
Ocean aeromagnetics, Arctic offshore, 1965-.

377. BROOME, J., Geol. Surv. Can.:
Magnetic interpretation techniques, 1984-.

378. BUCHAN, K.L., Geol. Surv. Can.:
Vertical movements of the Precambrian Shield, 1980-.

See:

Post-Aphebian uplift deduced from remanent magnetization, Yellowknife area of Slave Province; Can. J. Earth Sci., vol. 22, no. 12, p. 1793-1802, 1985 (1986).

379. BUCHAN, K.L., Geol. Surv. Can.:
Paleomagnetism of Nipissing diabase and Abitibi dykes, Ontario and Quebec, 1982-.

380. BUCHAN, K.L., Geol. Surv. Can.:
Paleomagnetism of the Appalachian orogen of Eastern Canada, 1985-.

381. CHRISTIE, K.W., Geol. Surv. Can.:
Paleomagnetism and rock magnetism instrumentation and technological development, 1970-.

382. CURRIE, R.G., Geol. Surv. Can.:
Marine magnetic surveys, Pacific margin, 1980-.

383. FAHRIG, W.F., Geol. Surv. Can.:
Paleomagnetism of the dykes of west Greenland, 1972-.

384. FAHRIG, W.F., Geol. Surv. Can.:
Paleomagnetism of Proterozoic igneous and sedimentary rocks of the Precambrian Shield, 1984-.

See:

The tectonic significance of some basic dyke swarms in the Canadian Superior Province with special reference to the geochemistry and paleomagnetism of the Mistassini swarm, Quebec, Canada; Can. J. Earth Sci., vol. 23, no. 2, p. 238-253, 1986.

385. GRAVENOR, C.P., COYLE, D.A., SYMONS, D.T.A., Univ. Windsor (Geology):
Anisotropy of magnetic susceptibility of glaciogenic sediments, 1983-90; M.Sc. thesis (Coyle).

There are two papers in press on this subject in CJES, one on varved clays and the other on diamictons from the Champlain Sea.

386. GUPTA, V.K., Ontario Geol. Surv.:
Cobalt Embayment interpretation, Ontario.

See:

Mineral-exploration aspects of gravity and aeromagnetic surveys in the Sudbury-Cobalt area, Ontario; in The Utility of Regional Gravity and Magnetic Anomaly Maps, W.J. Hinze, ed., Soc. Exploration Geophysicists, p. 392-412, 1985.

Cobalt Embayment interpretation depth to basement and distribution of Nipissing Diabase from aeromagnetics; Ontario Geol. Surv., Misc. Paper 126, p. 178-81, 1985.

Utilizing the existing Federal-Provincial aeromagnetic information, a project was initiated to attempt to derive basement depths in the Cobalt Embayment area. A range of depths from 900 to 1800 m was found to be in agreement with sparse drilling information in the area.

387. HODYCH, J.P., BUCHAN, K.L., Memorial Univ. (Earth Sciences), Geol. Surv. Can.:
Paleomagnetism of Silurian red beds and volcanics of Newfoundland, 1985-87.

Encouraging preliminary results have been obtained including positive fold tests and positive conglomerate tests. The aim is to obtain a Silurian paleopole for Newfoundland to test whether there was major longitudinal motion of Newfoundland relative to North America in the Devonian.

388. KNAPPES, W.A., Geol. Surv. Can.:
Aeromagnetic survey – Laurentian channel, 1985-.

389. LANGRIDGE, R.J., FARRAR, E., CLARK, A.H., ROY, J., Queen's Univ. (Geological Sciences), EMR (Earth Physics Br.):
Paleomagnetic assessment of the coherence of the central Andean Orogen, southern Peru, 1982-; Ph.D. thesis (Langridge).

Well constrained polos have been determined for Precambrian and Cretaceous rocks from the Anequipa Massif. Present work is concentrated on the determination of the precise timing of the post-Cretceous rotations that have affected these rocks.

390. MCGLYNN, J.C., Geol. Surv. Can.:
Paleomagnetic study of Proterozoic red beds of the western Canadian Shield, 1968-.

391. OLSON, D.G., Geol. Surv. Can.:
High resolution aeromagnetics (experimental surveys), 1968-.

392. RUSSELL, R.D., NAROD, B.B., GAO, ZU-CHENG, Univ. British Columbia (Geophysics and Astronomy):
Fluxgate magnetometer, 1981-85.

See:

An evaluation of the noise performance of Fe, Co, Si and B amperphous alloys in ring-core fluxgate magnetometers; Can. J. Physics, vol. 63, no. 11, p. 1468-1472, 1985.

Includes advances in ocean bottom magnetometry and evaluation of fluxgate characteristics.

393. SAWATZKY, P., Geol. Surv. Can.:
High resolution aeromagnetics (instrumentation development), 1977-.

GEOTHERMAL/GÉOTHERMIQUE

394. LOUDEN, K.E., WALLACE, D., LEVÉSQUE, S., Dalhousie Univ. (Oceanography):
Heat flow measurements on passive margins and ocean basins, 1982-; M.Sc. thesis (Wallace).

GRAVITY/GRAVITÉ

395. MILLER, H.G., Memorial Univ. (Earth Sciences):
Crustal geophysical investigations in Newfoundland.

See:

Offshore extensions of the Avalon Zone of Newfoundland; Can. J. Earth Sci., vol. 8, p. 1163-1170, 1985.

Determination by geophysical means of various aspects of Newfoundland Appalachian crustal structure.

396. WOODSIDE, J., Geol. Surv. Can.:
Satellite altimetry applications for marine gravity, 1985-.

SEISMOLOGY AND PHYSICS OF INTERIOR/ SISMOLOGIE ET PHYSIQUE DE L'INTÉRIEUR DE LA TERRE

397. BELL, J.S., Geol. Surv. Can.:
Regional geophysics of Mesozoic-Cenozoic of Baffin Bay – Labrador Margin, 1985-.

398. BURKE, K.B.S., Univ. New Brunswick (Geology):
Study of historical seismicity in the Maritime Provinces, 1984-.

See:

Re-evaluation of the 1817, 1855, 1869 and 1904 Maine-New Brunswick area earthquakes; Earthquake Notes, vol. 56, no. 2, 1985.

A systematic search is being made for reports of earthquakes in historical documents from representative locations in the Maritime Provinces.

399. BURKE, K.B.S., Univ. New Brunswick (Geology):
Microearthquake survey of the Miramichi New Brunswick Epicentral area from July 3rd to August 14th, 1985-.

A study of the location, magnitudes and fault mechanisms associated with the microearthquake actitiy in the epicentral area of the January 9th, 1982 Miramichi earthquake.

400. FRYDECKY, I.I., Geol. Surv. Can.:
Marine reflection seismology of the Western Canadian Continental Margin, 1983-.

401. GAGNE, R.M., Geol. Surv. Can.:
Shallow seismic, 1979-.

402. HAMILTON, T.S., Geol. Surv. Can.:
The geology of the Strait of Georgia, British Columbia, 1982-.

403. HEARN, D.J., Univ. Calgary (Geology and Geophysics):
Rays and waveforms in anelastic media, 1982-85; Ph.D. thesis.

404. JACKSON, H.R., Geol. Surv. Can.:
Arctic Ocean: seismic refraction and related geophysical measurements, 1978-.

See:

The Nares Strait gravity anomaly and its implications for crustal structure; Can. J. Earth Sci., vol. 22, no. 9, p. 1322-1328, 1985.

405. JACKSON, R.H., Geol. Surv. Can.:
Seismic refraction along the Canadian Polar Margin, 1984-.

406. KREBES, E.S., HEARN, D.J., COFLIN, K.C., Univ. Calgary (Geology and Geophysics):
Seismic wave propagation in a linear viscoelastic medium, 1977-.

See:

On the geometrical spreading of viscoelastic waves; Bull. Seism. Soc. Am., vol. 75, p. 391-396, 1985.

407. LOUDEN, K.E, Dalhousie Univ. (Oceanography):
Development and use of a digital ocean bottom seismometer, 1985-.

408. MACLEAN, B.C., Geol. Surv. Can.:
Interpretation of geophysical data from the Scotian Margin and adjacent areas as an aid to basin synthesis and estimation of hydrocarbon potential, 1984-.

409. MERRIAM, J.B., Univ. Saskatchewan (Geological Sciences):
Estimates of mantle anelasticity at Tidal Periods.

See:

Lageos and UT measurements of Long Period Earth tides and Mantle Q.; J. Geophys. Res., vol. 92, no. B11, p. 9423-9430, 1985.

Knowledge of mantle anelasticity is particularly poor at periods longer than seismic periods. Measurements of the amplitude of Earth tides can provide constraints on the anelasticity at periods up to 18.0 yr.

410. OVERTON, A., Geol. Surv. Can.:
Ice Island seismic reflection studies, 1984-.

411. PULLAN, S.E., Geol. Surv. Can.:
High resolution seismic (equipment development), 1980-.

412. REID, I., Geol. Surv. Can.:
Seismic studies of continental margins and ocean basins of the North Atlantic, 1980-.

413. REID, I., Geol. Surv. Can.:
Seismicity studies of the eastern Canadian margin, 1983-.

414. RICHARDSON, K.A., Geol. Surv. Can.:
Geophysial studies – Nova Scotia Mineral Development Agreement, 1984-.

415. YOUNG, R.P., Queen's Univ. (Geological Sciences):
Seismic rock mass characterisation, 1980-.

See:

Seismic attenuation spectra in roch mass characterisation: a case study in open pit mining; Geophysics, vol. 51, no. 2, p. 302-323, 1986.

Physical characterisation of rock masses using borehole methods; Geophysics, vol. 50, no. 12, p. 2530-2541, 1985.

Experiments have been carried out with a shallow downhole shear wave source and surface detectors, to determine the anisotropic effects of mine blasting on seismic velocity and attenuation of compressional and shear waves. The polarisation of the shear wave source was rotated and seismic data were collected using 3 component detectors along seismic lines radiating from a central source borehole. These experiments were repeated before and after mine blasting. Orthogonal joint sets existed within the rock mass prior to blasting, although one set dominated the wave propagation effects. The blast pattern used induced new fractures parallel to two free surfaces (one horizontal and one vertical) in the rock mass, as well as opening up the existing orthogonal fractures. Particle motion diagrams were used to highlight the polarisation directions of arriving waves, and spectral analysis of selected portions of the waves was carried out to study attenuation spectra as a function of wave propagation direction and source polarisation. The results show that the shear wave data are sensitive to blast induced fissures and can be used to quantify the fragmentation efficiency and fracture anisotropy caused by mine blasts. The analysis highlights the increased resolution of S wave data over compressional waves for the characterisation of fractured rock masses. The attenuation spectral data provides evidence for several mechanisms of wavelength dependent attenuation and in some selected cases, amplification phenomena caused by the blasting process. Polar diagrams of shear wave attenuation and velocity as a function of wave propagation direction and source polarisation, are being used in an attempt to quantify these complex processes.

416. YOUNG, R.P., HUTCHINS, D.A., MCGAUGHEY, W.J., URBANCIC, T., FALLS, S., TOWERS, J., Queen's Univ. (Geological Sciences, Physics):
Rock burst investigations using concurrent tomographic imaging and acoustic emission techniques, 1985-88; Ph.D. theses (McGaughey, Urbancic), M.Sc. theses (Falls, Towers).

This research project (funded by an NSERC Strategic grant, 1985-1988) is aimed at providing much needed fundamental knowledge about rock burst phenomena, through a three phase investigation. During Phase I, rock bursts will be investigated in the laboratory using a hybrid acoustic monitoring system involving both active and passive techniques. The active technique will produce an acoustic velocity and attenuation tomographic "movie" of the changing internal structure of the rock during deformation. Passive acoustic emission (naturally occurring sounds emitted by rocks under stress) will be used concurrently, to monitor acoustic transients emanating from propagating cracks during the deformation of the rock. In addition any precursor mechanisms in the tomographic and acoustic emission data will be investigated. The ultimate aim of this phase is to develop signal processing software and techniques which can eventually be transferred to the field situation.

Phase II will involve a study of what additional information can be extracted from mine microseismic data about the internal structure/integrity and state of stress of the rock mass through which the waves travelled. Seismic signal processing techniques, applied to three component data, will be utilised in order to provide information, in addition to source location maps already computed by the mining companies, about the source mechanisms of rock bursts.

Finally in phase III, the potential of borehole seismic probing methods will be studied by initially carrying out a concurrent tomographic imaging and microseismic monitoring of mine pillars as a function of time, using the techniques and software developed in Phase I.

OTHER/AUTRE

417. BEAUMONT, C., PETERS, J.A., STOCKNAL, G., ISSLER, D.R., BRAUN, J., LLOYD, P., HAMILTON, J., NANDEL, J., QUINLAN, G., Dalhousie Univ. (Oceanography), Memorial Univ. (Earth Sciences):
Several projects on geodynamics including sedimentary basins, geochemistry and tilt observations.

See:

Geodynamic models of convergent margin tectonics: the transition from rifted margin to overthrust belt; Am. Assoc. Petrol. Geol. Bull., vol. 70, no. 2, p. 181-190, 1986.

Borehole tilt measurements from Charlevoix, Quebec; J. Geophysics. Res., vol. 90, B14, p. 12791-12806, 1985.

The aromatization and isomerization of hydrocarbons and the thermal subsidence history of the Nova Scotian margin; Phil. Trans. Roy. Soc. London, A. vol. 315, p. 203-232, 1985.

Isomerization and aromatization of hydrocarbons and the paleothermometry and burial history of the Alberta foreland basin; Am. Assoc. Petrol. Geol. Bull., vol. 69, p. 546-566, 1985.

418. BRISTOW, Q., Geol. Surv. Can.:
Nuclear and analytical instrumentation, 1981-.

See:

A digital signal processing unit for the GeoInstruments magnetic suceptibility sensors, with analogue and RS-232C outputs; Geol. Surv. Can., Paper 85-1B, p. 463-466, 1985.

419. FOWLER, C.M.R., NESBET, E.G., Univ. Saskatchewan (Geological Sciences):
Origin of the Williston Basin, 1983-.

See:

The subsidence of the Williston Basin; Can. J. Earth Sci., vol. 22, p. 408-412, 1985.

A reveiw of some models for the formation of the Williston Basin; Saskatchewan Geol. Surv., Spec. Publ. 7, p. 1-3, 1985.

A continuing study of the structure and long-known thermal and flexual behaviour of the continental crust. The Williston Basin, a large intercratonic basin in W. Canada subsided at a fairly constant rate from the Cambrian to the Cretaceous and thus provides a unique opportunity for an economically useful study of the continental crust: an attempt to determine the reasons for which such sedimentary basins come into existence and details of their large scale subsidence.

420. GODFREY, J.D., SPRENKE, K.F., LANGENBERG, C.W., Alberta Research Council (Geol. Surv.):
Geophysial aspects of the Shield in Alberta, 1972-85.

421. HUNTER, J.A., Geol. Surv. Can.:
Beaufort Sea permafrost geotechnics, 1984-.

422. KATSUBE, T.J., Geol. Surv. Can.:
Pore structure in crystalline rocks, 1981-.

423. KEEN, C.E., Geol. Surv. Can.:
Rift processes and the development of passive continental margins, 1980-.

See:

Deep seismic reflection profile across the northern Appalachians; Geology, vol. 14, no. 2, p. 141-145, 1986.

424. MCGRATH, P.H., Geol. Surv. Can.:
Geophysical interpretation – Precambrian, 1984-.

425. MERRIAM, J.B., Univ. Saskatchewan (Geological Sciences):
Atmospheric angular momentum and changes in the length of day.

The recent demonstration that nearly all of the irregular fluctuations in the length of day are from exchange of angular momentum with the atmosphere permits the solution of some interesting problems. Some of those under investigation are; the exact mechanism of exchange; the input of angular momentum from the sun to the atmosphere; and an estimate of the strength of core mantle couplings.

426. MERRIAM, J.B., Univ. Saskatchewan (Geologial Sciences):
Transverse stress, tidal strain.

See:

Toroidal Love numbers and transverse stress at the Earths surface; J. Geophys. Res., vol. 90, no. B9, p. 7795-7802, 1985.

To examine the strains that may be produced in the Earth by transverse stresses at its surface. These arise from a variety of sources and result in undesirable influences of strain tide measurements.

427. MWENIFUMBO, C.J., Geol. Surv. Can.:
Borehole geophysics applications to coal, 1982-.

428. PALACKY, G.J., Geol. Surv. Can.:
Airborne resistivity mapping, 1985-.

429. ROCHESTER, M.G., Memorial Univ. (Earth Sciences):
Theoretical global geodynamics, 1961-.

See:

Long-period core dynamics; in Earth rotation – solved and unsolved problems, ed. A. Cazenave, 1985.

430. SCHWARCZ, E.J., Geol. Surv. Can.:
Geophysical interpretation Abitibi Belt, Ontario and Quebec, 1983-.

ENGINEERING GEOLOGY/GÉOLOGIE DE L'INGÉNIEUR

431. BORNHOLD, D., Geol. Surv. Can.:
Shallow seabed geology and geologic hazards, Hecate Strait and Dixon Entrance, Pacific Offshore, 1984-.

432. CRUDEN, D.M., HU, X-Q, LU, Z. Y., Univ. Alberta (Geology):
Geotechnical characterization of materials in slope movements in the Cordillera; M.Sc. theses (Hu, Lu).

See:

The debris of the Frank Slide and theories of rockslide-avalanche mobility; Can. J. Earth Sci., vol. 23, no. 3, p. 425-433, 1985.

To characterize materials in slope movements in the Canadian Cordillera sufficiently for approximate stability analyses of the moving slopes to be undertaken.

433. DALLIMORE, S.R., Geol. Surv. Can.:
Geological and geotechnical conditions, Beaufort Sea coastal zone, 1985-.

434. EVANS, S.G., Geol. Surv. Can.:
Landslide hazard in the Canadian Cordillera, 1983-.

See:

A debris flow triggered by the breaching of a moraine-dammed lake, Klattasine Creek, British Columbia; Can. J. Earth Sci., vol. 22, no. 10, p. 1492-1502, 1985.

435. HEGINBOTTOM, J.A., Geol. Surv. Can.:
Slope processes and cryogenic movements, Arctic Islands, 1977-.

436. LUTERNAUER, J.L., Geol. Surv. Can.:
Potential geologic hazards to development-seafloor and shallow subbottom of Queen Charlotte Sound, British Columbia, 1984-.

437. TANGUAY, M.G., BLANCHARD, C., École Polytechnique (Génie minéral):
Cartographie géotechnique de l'île de Laval, Québec, 1984-87; thèse de maîtrise (Blanchard).

Cartographier les types de sols, les conditions des sols et du rocher, la profondeur du mort-terrain et de la nappe phréatique. Evoluer l'adaptabilité du territoire au développement. Préparer la carte de documentation basée sur le fichier géotechnique.

PERMAFROST/PERGÉLISOL

438. GOODRICH, L.E., BAKER, T.H.W., National Research Council of Canada (IRC):
Ground thermal regime, 1981-89.

See:

Experimental measurements and a numerical method for ice sublimation; Proc. Fourth Internat. Symp. Ground Freezing, Sapporo, Japan, vol. 2, p. 1-7, 1985.

439. GRANBERG, H.G., DESROCHERS, D.T., McGill Univ. (Geography):
An investigation of snow and ground thermal regime in the Schefferville area, northern Quebec, 1985; Ph.D. thesis (Desrochers).

An investigation of the spatial and temporal variations in temperatures at the snow-ground interface in an area of discontinuous permafrost as a function of (a) snow cover, and (b) thermal and physical properties of ground material. The study also deals with the thermal regime and processes of heat transfer in (a) a cold and melting snow cover and (b) a freezing and thawing ground surface.

440. HARRY, D.G., Geol. Surv. Can.:
Characterization of ground ice occurrence in northern Canada, 1984-.

441. HEGINBOTTOM, J.A., Geol. Surv. Can.:
Properties and distribution of permafrost and ground ice, 1983-.

442. JOHNSTON, G.H., PARAMESWARAN, V.R., GOODRICH, L.E., PERNICA, G., National Research Council of Canada (IRC):
Permafrost engineering, 1978-88.

See:

Attenuating creep of piles in frozen soils; Proc. Conf. Foundations in Permafrost and Seasonal Frost, ASCE Spring Convention, Denver, p. 16-28, 1985.

Vibration amplitudes in the Inuvik Power House; DBR Paper no. 1283, NRCC 24460, 1985.

443. KURFURST, P.J., Geol. Surv. Can.:
Comparison of geotechnical and geophysical properties of arctic seabed sediments, 1982-.

See:

Geotechnical investigation of seabottom sediments, Tuktoyaktuk ara, District of Mackenzie; Geol. Surv. Can., Paper 86-1A, p. 775-778, 1986.

444. PARAMESWARAN, V.R., BAKER, T.H.W., National Research Council of Canada (IRC):
Physical and mechanical properties of frozen ground, 1981-86.

See:

Cyclic creep of frozen soils; Proc. Fourth Internat. Symp. Ground Freezing, Sapporo, Japan, vol. 1, p. 201-206, 1985.

Electrical potential developed during thawing of frozen ground; ibid., vol. 11, p. 9-15, 1985.

Acoustic and mechanical properties of frozen sand; ibid., vol. 1, p. 227-234, 1985.

Effect of sample preparation on the strength of frozen sand; ibid., vol. 2, p. 171-176, 1985.

445. ROWET, N.T., WOO, M.K., York Univ. (Geography), McMaster Univ. (Geography):
Hydrological investigation of wetlands in the continuous permafrost zone, 1982-87.

446. TAYLOR, R.B., Geol. Surv. Can.:
Permafrost processes in Arctic beaches, 1983-.

447. WRIGHT, R.K., McGill Univ. (Geography):
Numerial modelling of subarctic water balances, 1985-87.

To achieve the ability to use available AES meteorological data and satellite imagery to provide the necessary inputs for a special balance model. It will be implemented through an interactive (micro) computer program that will integrate the water balance program with an image processing program.

ROCK MECHANICS/MÉCANIQUE DES ROCHES

448. ANNOR, A., JACKSON, R., EMR (CANMET):
Underground nuclear waste repository, 1978-89.

See:

The mechanical properties of rock samples from the Lac du Bonnet Batholith; Division Rept. MRP/MRL 85-41(TR) CANMET, 1985.

Research area studies are to be completed in 1989 and involves three plutonic structures near Pinawa, Manitoba, Atikokan, Ontario Masse, Ontario.

449. ASTON, T.R.C., EMR (CANMET), Cape Breton Coal Research Laboratory:
Review and evaluation of undersea mining guidelines for the Sydney Coalfield, Nova Scotia, 1983-.

See:

Instrumentation schemes capable of measuring seafloor subsidence over Longwall Mining operations; 6th Internat. Mine Surv. Congr., September 9-13, 1985, Harrogate, U.K.

Sealing exploration drillholes: an essential part of mine planning; CIMM Second District Five Meeting, Hinton, Alberta, September 10-13, 1985.

450. ASTON, T.R.C., CAIN, P., EMR (CANMET), Cape Breton Coal Research Laboratory:
Investigate outburst phenomena and potential remedial measures in the Sydney Coalfield, Nova Scotia, 1984-.

See:

Gas and rock outbursts at No. 26 Colliery, Sydney Coalfield, Nova Scotia – a case history; 21st Internat. Conf. Safety in Mines Res. Instit., October 21-25, 1985, Sydney, N.S.W., Australia.

A major contract will be issued in FY 86/87 to conduct modelling and laboratory tests to provide the mining industry with a predictive tool to design mine entries with minimum outburst risk.

451. CAIN, P., ABBASS, M., EMR (CANMET):
A detailed evaluation of barrier pillar design criteria and their application to the Sydney Coalfield, Nova Scotia, 1984-.

McGill Univ. is analysing data collected under an EMR RAP grant. A final report is in preparation.

452. CAIN, P., STOKES, A., EMR (CANMET):
Investigation into the mechanism of gob leakage associated with different roadway driveage and gateside packing techniques and the effectiveness of preventive measures, 1985-.

See:

Summary of the effects of monolithic pumped packing at Lingan Colliery; CANMET Division Rept. ERP/CRL 85-86(OP), 1985.

CBDC implemented monolithic packing, montored by CBCRL. The trial has been successful in reducing gob leakage. Investigations into indigenous pump packing materials are underway and further trials are expected.

453. CRUDEN, D.M., FOSSEY, K., EATON, T., JOHNSON, V., Univ. Alberta (Geology):
Stability of natural slopes in rock; M.Sc. theses (Fossey, Eaton, Johnson).

Detailed mapping of selected sites at which large downslope movements in rock are occurring or have occurred has continued. Laboratory work has provided a theoretical basis for these studies.

454. DAS, B., EMR (CANMET):
Rock properties/classification for coal/oil sand mining, 1982-86.

See:

Evaluation of the point loading strength for soft rock classification; Proc. Fourth Conf. Ground Control in Mining, Morgantown, W. Virginia, July 22-26, 1985.

Three papers: 2 for conference presentation and one for publication in a periodical are under preparation.

455. EISBACHER, G.H., Geol. Surv. Can.:
Study of large landslides in the Cordillera, 1976-.

456. GRAHAM, C., EMR (CANMET):
Ontario mineral development agreement, 1985-.

To develop new backfill technology permitting the optimal use of backfill in underground mines in terms of support capabilities, placement techniques and engineering design procedures. As well multi-purpose analytical software for use by small mines in stability analysis of underground structures is to be developed.

457. GYENGE, M., BETOURNAY, M., EMR (CANMET):
Rock properties and support systems, 1981-88.

See:

MRL confined shear test method; Division Rept. MRP/MRL 85-138(TR), CANMET, 1985.

Surface pillars – Phase II; Contract Rept 5-9014 CANMET, 1985.

Guidelines for laboratory test procedures for use in underground rock mechanics investigations are to be published by 1988.

458. HEDLEY, D., ROCHON, P., MAKUCH, A., EMR (CANMET):
Rock bursts, 1985-90.

See:

The CANMET/MRL rockburst research project – an updated work plan; CANMET Division Rept MRP/MRL 85-106(TR), 1985.

459. HERGET, G., EMR (CANMET):
Evaporite mining methods, 1983-85.

See:

Seminar on Canadian potash mining and ground control; Division Rept. MRP/MRL 85-1(INT), CANMET, 1985.

Eight contracts were issued with START funding to determine in Saskatchewan, regional mine stability world review of potash excavation, testing of waste salt as backfill, creeptesting of potash, underground dust levels and related field tests.

460. HERGET, G., EMR (CANMET):
Instrumentation development, 1985.

See:

Stress tensor determinations with the South African biaxial strain cell (doorstopper); Computer program Division Rept. MRP/MRL 85-101(TR), CANMET, 1985.

Instrumentation is being developed to improve the in situ determination of rock mass parameters to predict excavation stability.

461. YU, Y., TOEWS, N., VONGPAISAL, S., EMR (CANMET):
Numerical model development, 1985-90.

See:

SAP2D an overview; Division Rept MRP/MRL 85-95(TR) CANMET, 1985.

A preliminary assessment of the B Mines computer code; Division Rept. MRP/MRL 85-22(INT) CANMET, 1985.

Two other reports are in preparation describing the application of numerical modelling as part of ground control investigations at Detour Lake and Niobec Inc. Mines. By 1988 guidelines for numerical modelling of underground mine openings will be completed.

462. YU, Y., VONGPAISAL, S., EMR (CANMET):
Manitoba mineral agreement, 1984-89.

See:

Communications systems for isolated area mines – Phase I; Contract Rept. 4-9147-2, CANMET, 1985.

Review of rock mass classification systems relevant to underground mines; Contract Rept. 4-9147-1, CANMET, 1985.

Annual program rept. on Task 1 – VRM design guidelines; Contract Rept. 4-9147-4, CANMET, 1985.

Annual program rept. on Task 4 – geomechanical and numerical models; Contract Rept 4-9147-3, CANMET, 1985.

Six research elements with the primary objective of improving mine productivity through better ground control, mining methods and communications.

SOIL MECHANICS/MÉCANIQUE DES SOLS

463. BOZOZUK, M., National Research Council of Canada (IRC):
Deep foundations and excavations, 1976-88.

See:

Downdrag on a 3-pile group of pipe piles; Proc. XI Internat. Conf. Soil Mechanics and Foundation Engineering, San Francisco, vol. 3, p. 1407-1412, 1985.

464. HUGHES, O.L., Geol. Surv. Can.:
Surficial geology and land classification, Mackenzie Valley Transportation Corridor, 1971-.

465. KONRAD, J.-M., National Research Council of Canada (IRC):
Offshore geotechnics, 1982-87.

See:

Study of in situ tests methods in deltaic silts; Proc. XI Internat. Conf. Soil Mechanics and Foundation Engineering, San Francisco, vol. 2, p. 879-886, 1985.

Undrained cyclic behaviour of Beaufort Sea silt; Proc. Arctic '85, ASCE Conf., San Francisco, p. 830-837, 1985.

466. LAW, K.T., BOZOZUK, M., KONRAD, J.-M., National Research Council of Canada (IRC):
Deformation and stresses in soils, 1972-89.

See:

Seismic soil behaviour under an earth dyke; Proc. XI Internat. Conf. Soil Mechanics and Foundation Engineering, vol. 4, p. 1853-1860, 1985.

Use of field vane tests under earth-structures; ibid., vol. 2, p. 893-898, 1985.

467. PALMER, J.H.L., National Research Council of Canada (IRC):
Tunnelling and underground construction, 1983-87.

See:

An erector transporter for the installation and removal of specialized mining equipment underground; Proc. 1985 Rapid Excavation and Tunnelling Conf., vol. 2, Chap. 55, p. 917-925, 1985.

Design, excavation, support of a large diameter coal mine access decline using a tunnel boring machine; ibid., vol. 1, Chap. 11, p. 155-175, 1985.

468. PALMER, J.H.L., SVEC, O.J., National Research Council of Canada (IRC):
Ground heat storage, 1978-88.

See:

Advanced heat-exchangers-economic potential for ground coupled heat; Proc. Ground Source Heat Pump Workshop, Toronto, 10 January, 1985.

Potential for improvement in ground heat pump energy exchange; Proc. Second Workshop on Solar Assisted Heat Pumps with Ground Coupled Storage, Vienna, 8-10 May, 1985.

SNOW AND ICE/NEIGE ET GLACE

469. FREDERKING, R., SAYED, M., National Research Council of Canada (IRC):
Ice-structure interactions, 1980-90.

See:

Ice pressures and behaviour at Adams Island, Winter 1983/84; Proc. Seventh Canadian Hydrotechnical Conf. Saskatoon, vol. 18, p. 365-387, 1985.

Quantitative analysis of ice sheet failure against an inclined plane; Proc. Fourth Internat. Conf. Offshore Mechanics and Arctic Engineering, vol. II, p. 160-169, 1985.

Ice force results from the modified Yamachiche Bend Lightpier, Winter 1983-84; Proc. Canadian Coastal Conf., St. John's, p. 319-331, 1985.

470. MCCLUNG, D.M., National Research Council of Canada (IRC):
Geotechnical aspects of snow mechanics, 1979-89.

See:

The temporal and spacial variation of snow pressure on structures; Can. Geotechnical J., vol. 22, p. 166-171, 1985.

471. MCCLUNG, D.M., SCHAERER, P.A., National Research Council of Canada (IRC):
Avalanche engineering, 1974-88.

See:

Statistical avalanche zoning; Proc. Internat. Snow Science Workshop, Aspen, Colorado, p. 95-98, 1985.

Measurements of the amount of snow brought down by avalanches; ibid., p. 78, 79, 1985.

472. SCHAERER, P.A., National Research Council of Canada (IRC):
Avalanche hazard evaluation, 1985-89.

See:

Avalanche incidents in Canada 1984-1985 winter; Avalanche News, no. 18, June 1985.

473. SINHA, N.K., National Research Council of Canada (IRC):
Engineering behaviour and properties of fresh water ice, 1975-86.

474. SINHA, N.K., National Research Council of Canada (IRS):
Engineering behaviour and properties of sea ice, 1980-87.

See:

Confined strength and deformation of second-year columnar-grained sea ice in Mould Bay; Proc. Fourth Internat. Offshore Mechanics and Arctic Engineering (OMAE) Symp., vol. 2, p. 209-219, 1985.

475. CLARKE, G.K.C., RUSSELL, R.D., MAXWELL, M.G., Univ. British Columbia (Geophysics and Astronomy):
Oxygen isotope analyses – Glacier Ice, 1981-.

An isotopic examination of basal and bulk ice in surging glaciers.

476. LAURIOL, B., Université d'Ottawa (Géographie):
Distribution des plaques de neige en été à travers l'Arctique canadien, 1982-.

L'objectif général est de comprendre les facteurs qui expliquent la distribution des plaques de neige en été à travers l'Arctique canadien, en dehors des régions montagneuses.

477. SCHWARCZ, H.P., ZYMELA, S., STALKER, A.McS., McMaster Univ. (Geology), Geol. Surv. Can.:
ESR dating of teeth from glacial deposits, 1984-; M.Sc. thesis (Zymela).

Electron spin resonance is used to determine the age of tooth enamel in fossil teeth embedded in sands and gravels, near Medicine Hat, Al. The ages obtained range from 10 000 to 600 000 y B.P.

HYDROGEOLOGY/HYDROGÉOLOGIE

478. CRAIG, D., JOHNSTON, L., Environment Canada (National Hydrology Res. Instit.):

Acid neutralization in groundwater flow systems – Turkey Lakes calebrated watershed, 1980-.

See:

Neutralization of acid runoff by groundwater discharge to streams in Canadian Precambrian Shield watersheds; J. Hydrology, vol. 75, p. 1-26, 1985.

To identify the direct effects of acidic precipitation on groundwater chemistry and the role of groundwater in moderating the acidification of surface waters on the Canadian Shield.

479. FREEZE, R.A., SMITH, J.L., CASELTON, W., ANDERSON, D., PATTON, F., MASSMANN, J., CAHN, L., ZAPF-GILJE, R., Univ. British Columbia (Geological Sciences, Civil Engineering), Westbay Instruments:
Risk assessment and design of data collection and monitoring networks at waste management sites, 1984-86; PH.D. thesis (Massmann), M.Sc. thesis (Cahn).

See:

A framework for the analysis of groundwater contamination from waste management sites; Proc. Internat. Symp Management of Hazardous Waste Sites, Assoc. Engin. Geol., Winston-Salem, N.C., 1985.

480. HITCHON, B., BACHU, S., SAUVEPLANE, C.M., LYTVIAK, A.T., Alberta Research Council (Geol. Surv.):
Hydrogeology of the Cold Lake study area, Alberta, Canada, 1982-86.

See:

Preliminary fluid flow analysis of a deep basin, Cold Lake region, Alberta; Proc. Internat. Groundwater Symp. Groundwater Res. Utilization and Contaminant Hydrogeology, Montreal, Canada vol. II, p. 257-273, 1985.

Influence of lithology and fluid flow on the temperature distribution in a sedimentary basin: a case study from the Cold Lake area, Alberta, Canada; Tectonophysics, vol. 120, p. 257-284, 1985.

Dynamic basin analysis: an integrated approach with large data bases; Geol. Soc. London Joint Meeting of Petroleum Group and Hydrogeology on "Fluid Flow in Sedimentary Basins and Aquifers", London, June 12-13, 1985.

481. HITCHON, B., BACHU, S., SAUVEPLANE, C.M., LYTVIAK, A.T., Alberta Research Council (Geol. Surv.):
Hydrogeology of the Swan Hills area, Alberta: evaluation for deep waste injection, 1984-85.

See:

The Swan Hills facility of Alberta Special Waste Management Corporation: evaluation for deep waste disposal; 2nd Ann. Can./Amer. Conf. Hydrogeology on "Hazardous Wastes in Ground Water – A Soluble Dilemma", Banff Alberta, June 25-29, 1985.

Comparison of analytical and numerical methods for evaluating cross-formational flow and selecting the preferred injection aquifer, Swan Hills, Alberta, Canada; Internat. Symp. Subsurface Injection of Liquid Wastes, UIPC-EPA-NWWA, New Orelans, March 3-5, 1986.

482. GRICE, R.H., GREEN, S., McGill Univ. (Geological Sciences):
Groundwater chemistry of Eastern Ontario, 1986.

Reappraisal of area Ottawa-St. Lawrence Rivers covered by Charron in Scientific Series Study No. 76, 1978 with additional data using equilibrium analyses such as WATEQF.

483. MICHEL, F.A., ELLIOTT, L.C.M., Carleton Univ. (Geology):
Redox survey of a shallow contaminant plume in an unconfined aquifer at Gloucester landfill, Gloucester, Ontario, 1984-86.

484. NOVAKOWSKI, K.S., Environment Canada (National Hydrology Res. Instit.):
Mechanisms of Non-Aqueous Phase Transport in sedimentary rock, 1985-88.

Study is focused on identification and investigation of the parameters which control the transport of Non-Aqueous Phase Liquids (NAPL) in fractured sedimentary rocks. In particular, attention is centered on field studies of the nature of both primary and secondary porosity and vertical permeability in Paleozoic sediments. In addition, both cored and quarried rock samples will be used in laboratory investigations of two-phase relative permeability and the process of matrix diffusion. The results of the field and laboratory studies will be used in critical evaluation of the conceptual and mathematical models currently in use today and in developing new approaches to predicting NAPL transport in rock.

485. SAUVEPLANE, C.M., MORTENSEN, P.S., DIXON, J., Alberta Research Council (Geol. Surv.), Geol. Surv. Can.:
Hydrogeology and abnormal pore pressures in the Beaufort-MacKenzie sedimentary gasin, 1985-87.

Data from available drillstem tests and temperature records have been analysed in the Beaufort-MacKenzie basin. A technique based on plots per well of pressure head and geothermal gradients is used to delineate zones of abnormality. The complex geological setting prohibits, at the present level of exploration of the basin, a conventional 3D flow regime analysis. Further research is proposed.

486. VAN EVERDINGEN, R.O., Environment Canada (National Hydrology Res. Instit.):
Thermal springs in Rocky Mountain National Parks, 1980-86.

See:

Role of corrosion by H_2SO_4 fallout in cave development in a travertine deposit – evidence from S and O isotopes; Chemical Geol., vol. 49, p. 205-211, 1985.

Monthly sampling at Miette Hot Springs (Jasper N.P.) and Radium Hot Springs (Kootenay N.P.) was cut short in February 1985. Due to laboratory foul-ups, the final report is delayed into 1986.

487. VAN EVERDINGEN, R.O., BANNER, J.A., Environment Canada (National Hydrology Res. Instit.):
Northern groundwater and engineering problems related to groundwater flow, 1972-86.

See:

Unfrozen permafrost and other taliks; U.S. Army Cold Regions Res. Engineering Lab. Spec. Rept. 85-5, p. 101-105, 1985.

Most of the efforts were directed towards preparation of contributions on the hydrogeology of the permafrost region, for "Hydrogeology of North America" (DNAG), and for "Canadian Aquatic Resources – Current Status, Future Prospects" (Rawson Academy of Aquatic Science), and work on the "Permafrost Glossary" (National Research Council of Canada). Frost guage measurements at the Foothills Pipe Lines frost-heave test site in Calgary, to determine extent of frozen and ice-rich ground, will continue until the "frost bulbs" around the buried test pipes have thawed completely following the shutdown of the chilling operation, expected in early 1986.

488. VAN EVERDINGEN, R.O., MAATHUIS, H., Environment Canada (National Hydrology Res. Instit.), Saskatchewan Res. Council:
Influence of Lake Diefenbaker (Saskatchewan) on groundwater levels in bedrock aquifers, 1964-1987.

All piezometers have been tested, cleaned and sampled during 1985, and data covering 23 years of observations have been processed in preparation for final reporting.

489. BLASCO, S.M., Geol. Surv. Can.:
Surficial geology of Lomonosov Ridge, Arctic Ocean, 1978-.

490. BUCKLEY, D.E., Geol. Surv. Can.:
Environmental geology of the deep ocean, 1979-.

491. CARBOTTE, S.M., DIXON, J.M., FARRAR, E., DAVIS, E.E., RIDDIHOUGH, R.P., Queen's Univ. (Geological Sciences), Pacific Geoscience Center:
The geological and geophysical characteristics and geotectonic significance of the Tuzo Wilson Knolls, Northern Explorer triple junction, 1984-86; M.Sc. thesis (Carbotte).

See:

Geological and geophysical characteristics, and geotectonic significance of the Tuzo Wilson Knolls; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 52, 1986.

492. CHASE, R.L., SCOTT, S.D., MICHAEL, P.J., SHEA, G., DENTON, A., Univ. British Columbia (Geological Sciences, Oceanography), Univ. Toronto (Geology):
Hydrothermal deposits, petrology and tectonics of ridges and seamounts of the Northeast Pacific, 1983-86; M.Sc. theses (Shea, Denton).

See:

Geochemistry and origin of volcanic rocks from Tuzo Wilson and Bowie Seamounts, northeast Pacific Ocean; Can. J. Earth Sci., vol. 22, p. 1609-1607, 1985.

Canadian American Seamount Expedition, 1985, Hydrothermal vents on an Axial Seamount of the Juan de Fuca Ridge; Nature, vol. 313, p. 212-214, 1985.

CASM cruise 5 to Tuzo Wilson Seamount and Southern Explorer Ridge (SER) aboard the Canadian Forces Auxiliary Vessel ENDEAVOUR (1985 May-June), a joint UBC-U of Toronto-EMR operation, resulted in detection of seawater conductivity anomalies on Tuzo Wilson Seamounts, possibly indicative of hydrothermal circulation. Discovery of particulate matter northeast of Magic Mountain (SER) suggests another vent field. Dredging of fresh basalt along the 65 km length of SER corroborated hypothesis of Riddihough and Malahoff that it is the currently active segment at the southern end of Explorer Ridge. Residual element enrichment in basalt increases along the crest of SER towards the highest part, near Magic Mountain vent field.

493. EMORY-MOORE, M., HALE, W.E., Univ. New Brunswick (Geology):
Offshore sediments, southeastern Nova Scotia, 1981-85; M.Sc. thesis (Emory-Moore).

494. FORBES, D.L., Geol. Surv. Can.:
Sediment dynamics and depositional processes in the Coastal Zone, 1982-.

See:

Beach sedimentation in Ireland: contrasts and similarities with Atlantic Canada; Geol. Surv. Can., Paper 86-1A, p. 55-64, 1986.

495. GREENWOOD, B., SHERMAN, D.J., Univ. Toronto (Geography, Geology):
Nearshore hydrodynamics, 1980-.

See:

Determination of wave angle in shallow water; J. Waterway, Port, Coastal and Ocean Engineering, vol. 112, p. 129-139, 1986.

Field experimentation using continuous resistance wave-staffs and electromagnetic flow meters coupled to a computer-based high speed data acquisition system is aimed at studying the fluid motions under shoaling and breaking waves. The aims are to provide a database for testing existing theory and generating new theory on the forcing of nearshore currents.

496. HANNINGTON, M.D., PETER, J.M., SCOTT, S.D., Univ. Toronto (Geology):
Gold in polymetallic massive sulfide deposits of the modern ocean floor, 1983-85.

Detailed geochemical and mineralogical study of Axial Seamount, Explorer Ridge, and Guaymas Basin deposits which provides evidence for the origin and distribution of gold in seafloor polymetallic sulfides.

497. JACKSON, H.R., Geol. Surv. Can.:
Surficial geology and crustal structure of the Alpha Ridge, Arctic Ocean, 1981-.

498. JOSENHANS, H.W., Geol. Surv. Can.:
Surficial geology, geomorphology and glaciology of the Labrador Shelf, 1981-.

See:

A 3.5 kHz acoustic survey of Nachvak Fiord, northern Labrador; Geol. Surv. Can., Paper 86-1A, p. 221-228, 1986.

499. LAKHAN, V.C., BUCKLAND, J., LAROCQUE, C., Univ. Windsor (Geography):
Stability of coastal systems, 1985.

See:

Dynamic stability of coastal systems; in Coastal Modelling: Techniques and Applications, Elsevier Science Publishers, The Netherlands, 1986.

500. LEWIS, C.F.M., Geol. Surv. Can.:
Ice scouring of Continental Shelves, 1979-.

See:

Submersible observations and origin of an iceberg pit on the Grand Banks of Newfoundland; Geol. Surv. Can., Paper 86-1A, p. 251-258, 1986.

501. LEWIS, C.F.M., Geol. Surv. Can.:
Engineering geology of the Atlantic shelf, 1983-.

See:

Clay minerals across the Tertiary-Quaternary boundary, northeastern Grand Branks of Newfoundland: preliminary results; Geol. Surv. Can., Paper 85-1B, p. 63-68, 1985.

502. LOGAN, A., Univ. New Brunswick, Saint John (Geology):
Ecology and behaviour of **Scolymia cubensis**: a modern analogue for fossil solitary corals, 1986-.

See:

Intraspecific immunological responses in 5 species of corals from Bermuda; Proc. 5th Internat. Coral Reef Symp., Tahiti, 1985.

503. MACLEAN, B., Geol. Surv. Can.:
Eastern Baffin Island shelf bedrock and surficial geology mapping program, 1976-.

504. MAYER, L.A., Dalhousie Univ. (Oceanography):
High resolution seismic stratigraphy and remote sediment classification using a broad-band subbottom profiler 1981-.

505. MCCONACHY, T.F., SCOTT, S.D., MOTTL, M.J., Univ. Toronto (Geology), Woods Hole Oceanographic Inst.:
Hydrothermal plumes in seawater above active vent site, 1984-87; Ph.D. thesis (McConachy).

See:

Discovery of hydrothermal particle plumes on the Southern Explorer Ridge; Abstract EOS, vol. 66, p. 929, 1985.

Two cruises sampled hydrothermal plumes on southern Explorer Ridge in 1985. Further sampling is planned in this area on one cruise during 1986. Preliminary measurements will be made in Western Woodlark Basin (a back arc environment) to compare with plumes associated with North East Pacific Rift environment.

506. MORAN, K., Geol. Surv. Can.:
Marine geotechnical studies of the Canadian Eastern and Arctic Continental shelves and slopes, 1985-.

See:

A sea-level curve for the Canadian Beaufort Shelf; Can. J. Earth Sci., vol. 22, no. 10, p. 1383-1393, 1985.

507. PETER, J.M., SCOTT, S.D., Univ. Toronto (Geology):
Geology, mineralogy and geochemistry of Guaymas Basin Ventifeld, Gulf of California, 1983-86; M.Sc. thesis (Peter).

See:

Mineralogy and geochemistry of hydrothermal vent deposits, Guaymas Basin, Gulf of California; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with Abstrcts, vol. 10, p. A48, 1985.

Guaymas Basin was revisted in August 1985 and J.M. Peter participated in 1 "Alvin" dive on the deposits. 200 kg of sulfide material was recovered and is the subject of study.

508. PIPER, D.J.W., Geol. Surv. Can.:
Quaternary geologic processes on continental slope, 1981-.

See:

Sediment slides and turbidity currents on the Laurentian Fan: Sidescan sonar investigations near the epicenter of the 1929 Grand Banks earthquake; Geology, vol. 13, no. 8, p. 538-541, 1985.

509. PIPER, D.J.W., Geol. Surv. Can.:
Facies models of modern turbidites, 1983-.

510. SCHAFER, C.T., Geol. Surv. Can.:
Temporal and spatial variation of deep ocean currents in the western Labrador Sea, 1983-.

511. SCOTT, S.D., BINNS, R.A., CHASE, R.L., Univ. Toronto (Geology), CSIRO, Sydney, Australia, Univ. British Columbia (Geological Sciences):
Search for hydrothermal vents in the Woodlark Basin, Papua-New Guineau ("PACLARK" Cruise), 1986-88.

This joint Australian-Canadian-PNG cruise is searching for hydrothermal activity and deposits on young seamounts in Woodlark Basin, a young ocean basin that is propagating into the Australian cratonic plate.

512. SCOTT, S.D., CHASE, R.L., BARRETT, T.J., MCCONACHY, T.F., SHEA, G., DENTON, W., HANNINGTON, M.D., Univ. Toronto (Geology), Univ. British Columbia (Geological Sciences):
Young seamounts of the northeast Pacific Ocean 1983-86; M.Sc. theses (Shea, Denton).

Detailed examination of sulfide deposits on Explorer Ridge.

513. TAYLOR, R.B., Geol. Surv. Can.:
Coastal environments and proceses in the Canadian Arctic Archipelago, 1982-.

COAL GEOLOGY/ GÉOLOGIE DU CHARBON

514. CAMERON, A.R., Geol. Surv. Can.:
Petrographic examination of coking coal from the Kootenay Formation, Alberta and British Columbia, 1961-.

515. CAMERON, A.R., Geol. Surv. Can.:
Petrographic analysis of Saskatchewan lignites, 1972-.

516. CAMERON, A.R., Geol. Surv. Can.:
Relationship of reflectance to chemical rank parameters of western Canadian coals, 1979-.

517. CAMERON, A.R., Geol. Surv. Can.:
Regional coal rank variations in the Kootenay Formation and their relationship to the structural history of the southern Canadian Rocky Mountains, British Columbia-Alberta, 1981-.

518. CAMERON, A.R., Geol. Surv. Can.:
Petrographic analyses of coals in the Saunders Group, Outer Foothills Belt, Alberta, 1983-.

519. DAWSON, F.M., Geol. Surv. Can.:
Resource evaluation and geology of coal deposits of western Canada, 1976-.

520. GOODARZI, F., Geol. Surv. Can.:
Compositional characteristics of coals from Hat Creek, British Columbia, 1977-.

521. GOODARZI, F., Geol. Surv. Can.:
Mineral matter and trace element content of Canadian coals, Alberta, 1978-.

522. HACQUEBARD, P.A., Geol. Surv. Can.:
Rank and petrographic studies of coal and organic matter dispersed in sediments, 1968-.

523. HUGHES, J.D., Geol. Surv. Can.:
Resource evaluation and geology of Canada's coal deposits, 1981-.

524. JERZYKIEWICZ, T., Geol. Surv. Can.:
Sedimentological studies of coal-bearing Upper Cretaceous and Paleocene formations, central Alberta Foothills, 1981-.

See:

Stratigraphy of the Saunders Group in the central Alberta Foothills – a progress report; Geol. Surv. Can., Paper 85-1B, p. 247-258, 1985.

525. KALKREUTH, W.D., Geol. Surv. Can.:
Optical properties of coals and dispersed organic materials, 1975-.

526. KALKREUTH, W.D., Geol. Surv. Can.:
Evaluation of liquefaction potential of low rank coals and peats, 1981-.

527. KALKREUTH, W.D., Geol. Surv. Can.:
Regional coalification studies in the Minnes, Bullhead and Fort St. John groups, northeastern British Columbia, 1981-.

528. KILBY, W., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Tonsteins and Bentonites in the Peace River Coalfield, British Columbia, 1983-.

Tonsteins and bentonites of the Cretaceous Bullhead and Ft. St. John groups are being identified, correlated and analyzed. Correlations in excess of 100 km have been obtained. Age dating of several horizons is in progress.

529. KILBY, W., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Biaxial reflecting coals, 1985-.

See:

Biaxial reflecting coals in the Peace River Coalfield; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, 1986.

Initial phase of project will identify occurrence of biaxial reflecting coals. Subsequent work will concentrate on the utilization of this information with regard to quality, structural and correlation implications.

530. KOO, J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geoscientific evaluation of the Telkwa coal measures in northwestern British Columbia, 1982-86.

To reveal the stratigraphy, structural development, depositional environments, and geologic age of the Telkwa coal measures; the correlation of coal seams and their quality, rank, and number; the areal extent of the coal measures and their relationships to surrounding rocks; coal reserves; geologic relationships of the two coal measures to other major coal measures in northwestern British Columbia; deposit models as regional and local exploration guides.

531. KOO, J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geoscientific evaluation of Klappan coal measures in northwestern British Columbia, 1983-87.

See:

Geology of the Klappan Coalfield in northwestern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 225-228, 1986.

To reveal the stratigraphy, structural development, depositional environments, and the geologic age of the Klappan coal measures; the correlation of coal seams and their quality, rank, and number; the areal extent of the coal measures and their relationships to surrounding rocks; coal reserves; geologic relationships of the coal measures to other major coal measures in northwestern British Columbia; regional and local exploration models.

532. LONG, D.G.F., FOLEY, S., Laurentian Univ. (Geology):
Sedimentology of coal-bearing sequences, 1981-90; M.Sc. thesis (Foley).

To provide a paleogeographic framework for coal deposits in Yukon, Ontario and Northwest Territories. S. Foley is working on the sedimentology of the Heiberg Formation.

533. MAINWARING, P., EMR (CANMET):
High sulphur coals, 1984-.

534. MCCABE, P.J., MACDONALD, D.E., RICHARDSON, R.J.H., STROBL, S., BOSMAN, A., Alberta Research Council (Geol. Surv.):
Evaluation of the coal resources in the Alberta Plains area, to a depth of 400 m, 1986.

To evaluate the coal resources to a depth of 400 m, south of township 64 and to develop geological techniques to predict the distribution, geometry and thickness of coal seams. Completed.

535. NORRIS, D.K., Geol. Surv. Can.:
Coal-Paleozoic, Mesozoic and Tertiary, western District of Mackenzie and northern Yukon Tertitory, 1985-.

See:

An occurrence of bituman in the Interior Platform near Rengleng River, District of Mackenzie; Geol. Surv. Can., Paper 86-1A, p. 645-648, 1986.

536. RICKETTS, B.D., Geol. Surv. Can.:
Studies of coal deposits of western and northern Canada, 1977-.

537. RICKETTS, B.D., Geol. Surv. Can.:
Stratigraphic and coal resource analyses of coal bearing basins of Arctic Canada, 1985-.

538. SCHROETER, T.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Mineral and coal potential in northwestern British Columbia, 1984-85.

See:

British Columbia Ministry Energy, Mines, Petrol. Res., Prel. Map No. 58 (1:1 000 000), 1985.

539. SCHROETER, T.G., KOO, J., WHITE, G.V., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Coal in northwestern British Columbia – an overview, 1985-86.

To present the history, current status, and possible future of coal prospects in northwestern British Columbia.

540. SMITH, G.G., Geol. Surv. Can.:
Resource evaluation and geology of coal deposits of western and northern Canada, 1983-.

541. VAN DER FLIER-KELLER, E., Univ. Victoria (Geography):
Geochemistry and mineralogy of two Cretaceous coal-bearing sequences, James Bay lowlands, Northern Ontario, Peace River Basin, northeastern British Columbia.

See:

Uranium-thorium systematics of two canadian coals; Internat. J. Coal Geol., vol. 4, p. 335-353, 1985.

Work in progress on a model for trace element occurrence in coal.

542. ZODROW, E.L., BIRK, D., Univ. College of Cape Breton (Geology), Atlantic Coal Instit:
Mineral matter in coal, 1985-.

Correlation of trace-elements with mineralogy of pyrite and exotic minerals found as inclusions therein. Coal mineralogy and genesis of pyrite and associated sulfide phases. All of these studies have a bearing on coal beneficiation and sulfur-pollution abatement in particular.

INDUSTRIAL MINERALS/SUBSTANCES MINÉRALES INDUSTRIELLES

543. ADAMS, G., Nova Scotia Dept. Mines and Energy:
Gypsum and anhydrite resources of Nova Scotia, 1984-88.

To document the gypsum and anhydrite resources of Nova Scotia in terms of grade, thickness, extent, reserves, accessibility and development potential.

544. BERARD, J., DURAND, B., École Polytechnique (Génie minéral):
Rôle des additifs minéraux dans les réactions alcalis-granulats des bétons, 1985-88; thèse de doctorat (Durand).

Aprè avoir terminé (1985) son M.Sc.A. sur les réactions alcalis-granulat M. Durand poursuit ses recherches, au niveau du Ph.D., alors qu'il tentera de trouver des additifs minéraux susceptibles de contrecarrer des réactions chimiques néfastes.

545. BUTEAU, P., Ministère de l'Énergie et des Ressources du Québec:
Inventaire des tourbières de l'Abitibi, Québec, 1984-86.

Inventaire systématique des tourbières au moyen de photo-interprétation, sondages et analyses; évaluation qualitative et quantitative des dépôts. Les travaux de l'été 85 ont été effectués dans les régions situées au nord et à l'ouest d'Amos.

546. CHRISTIE, R.L., Geol. Surv. Can.:
Geology of bedded phosphate deposits in Canada, 1976-.

547. CHURCH, B.N., HORA, Z.D., British Columbia Dept. Mines, Energy, Petrol. Res. (Geol. Br.):

See:

Zeolites in Eocene rocks of the Penticton Group, Okanagan-Boundary region, south-central, British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 50-55, 1986.

A survey of Early Tertiary rocks of the Okanagan-Boundary areas led to the discovery of a large variety of zeolites in both volcanic and sedimentary formations of the Penticton Group. The most common are natrolite, laumontite and heulandite with local abundance of clinaptilolite.

548. DEAN, R.L., MEYER, J.R., Newfoundland Dept. Mines and Energy:
Industrial minerals in Labrador, 1984-.

Drilled dolomitic marble deposits in Lab City/Wabush area, to verify suitability for self-fluxing iron ore pellets. Reconnaissance sampling of quartz-feldspar vein system in southeastern Labrador, and of anorthosite rocks in Goose Bay and Nain areas.

549. DICKIE, G.B., Nova Scotia Dept. Mines and Energy:
Building stone resources of Nova Scotia, 1985-89.

To systematically evaluate and catalogue the building stone resources of Nova Scotia through mapping, sampling and diamond drilling – to prepare a final report documenting the above and prepare promotional materials so as to encourage the development of a viable building stone industry.

550. EDWARDS, W.A.D., Alberta Research Council (Geol. Surv.):
Aggregate resources of the Carrot Creek area, Alberta, 1983-85.

551. EDWARDS, W.A.D., Alberta Research Council (Geol. Surv.):
Aggregate resources of the Drumheller area, Alberta, 1983-85.

552. EDWARDS, W.A.D., HUDSON, B., SCAFE, D., Alberta Research Council (Geol. Surv.):
Aggregate supply and demand study, east-central Alberta, 1982-84.

553. FOX, J.C., SCAFE, D., Alberta Research Council (Geol. Surv.):
Aggregate resources of Alberta, 1976-98.

See:

Aggregate Resources of: Maps NTS 84F Bison Lake, NTS 84K Mount Watt, NTS 84C Peace River, NTS 84M Bitcho Lake, NTS 84L Zama Lake, NTS 84J Vermilion Chutes, Alberta Geol. Surv., 1985.

554. GLOOSCHENKO, W.A., BOURBONNIERE, R.A., Environment Canada (National Hydrology Res. Instit.):
Environmental impact of peatland development upon aquatic ecosystems, 1982-.

555. GUNTER, R., YAMADA, P., Manitoba Dept. Energy and Mines (Geol. Serv.):
Industrial minerals in northern Manitoba, 1985-89.

556. HÉBERT, Y., JACOB, H-L., Ministère de l'Énergie et des Ressources du Québec:
Géologie des gîtes de talc et steatite des Cantons de l'Est du Québec, 1984-86.

Voir:

Géologie des gîtes de talc associés au feuillet de Pennington Carte annotée; Ministère de l'Énergie et des Ressources du Québec, DP 85-01, 1986.

Inventorier les gîtes et indices de talc associés à la ceinture ophiolitique du sud du Québec; situer le cadre géologique et structural des gisements. Les travaux de cet été ont surtout porté sur la minéralisation de la région de Magog.

557. HORA, Z.D., PELL, J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Carbonatites and related intrusives in British Columbia, 1984-87.

558. HOWSE, A.F., DEAN, P.L., Newfoundland Dept. Mines and Energy:
An evaluation of Newfoundland marble deposits, 1985-88.

See:

Marble assessment – Insular Newfoundland; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

To determine the potential value of Newfoundland marble for such industrial applications as fillers, whiteners and dimension stone. Having completed a general survey of the island's marble in 1985, the next phase (1986) will involve detailed investigations (including diamond drilling) of selected promising deposits.

559. LANGFORD, F.F., RENAUT, R.W., BOYS, C., Univ. Saskatchewan (Geological Sciences):
Geological studies of the Devonian potash deposits of the Elk Point Basin, 1985-89; M.Sc. thesis (Boys).

Systematic investigation of the stratigraphy, sedimentology, mineralogy and geochemistry of the potash ore zone of the Prairie Evaporite, with special emphasis on determining the nature and origin of geological anomalies encountered in potash mines.

560. LEGUN, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Wapiti Syncline phosphate potential (93 I/10, 7), British Columbia, 1985.

See:

British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 151-153, 1985.

Tracing and sampling of phosphatic interval in Whistler Member (Sulphur Mountain Formation) of Triassic age.

561. LOCAT, J., CHAGNON, J-Y., BRAZEAU, A., Université Laval (Géologie), Ministère de l'Énergie et des Ressources du Québec:
Inventaire des ressources en granulats, 1985-86.

Etude et caractérisation comme source de granulats des dépôts de sable et gravier des régions de Québec et de Val d'Or. Le projet servira à définir et mettre au point une méthode d'inventaire applicable aux autres régions du Québec.

562. MARTINI, I.P., Univ. Guelph (Land Resource Science):
Bedrock and Pleistocene resources of southwestern Ontario, 1982-.

563. NANTEL, S., Ministère de l'Énergie et des Ressources du Québec:
Gîtes d'apatite associés aux complexes anorthositiques, 1985-86.

Etude de minéralisations en apatite – oxyde de fer et titane associées aux complexes anorthositiques de la Cote Nord et du Saguenay. Caractériser les principaux gîtes et en estimer le potentiel économique.

564. PETRYK, A.A., Ministère de l'Énergie et des Ressources du Québec:
Géologie des calcaires de la région de Lime Ridge, Québec, 1985-86.

Cartographie détaillée des calcaires de la Formation du Lac Aylmer. L'étude a pour but de délimiter et caractériser chimiquement les meilleures zones de calcaire à haute teneur en calcium.

565. SEAMAN, A.A., New Brunswick Forests, Mines and Energy:
Granular aggregte resources of southeastern New Brunswick, 1985-86.

To map and evaluate the granular aggregate resources of the Moncton, Hillsborough, Amherst, Port Elgin and Cape Tormentine, 1:50 000 scale N.T.S. map areas of southeastern New Brunswick.

566. SIMANDL, G., VALIQUETTE, G., JACOB, H-L., Université de Montréal (Géologie), Ministère de l'Énergie et des Ressources du Québec:
Étude des gîtes de graphite de l'Outaouais, Québec, 1983-86; thèse de doctorate (Simandl).

Inventaire et classification des gîtes de graphite de l'Outaouais. Cartographie détaillée et étude minéralogique de gîtes sélectionnés en vue de préciser les facteurs controlant la minéralisation. Dégager des critères pouvant aider à l'exploration de cette substance.

567. TELFORD, P.G., Ontario Geol. Surv.:
Mesozoic geology and lignite resources of Moose River Basin, northeastern Ontario, 1981-86.

A component of the Hydrocarbon Energy Resources Program aimed at evaluation of Ontario's indigenous hydrocarbon energy resources.

568. THIBAULT, J.T., New Brunswick Forests, Mines and Energy:
Granular aggregate resources of the Acadian Peninsula and of the Northwest Panhandle, New Brunswick, 1985-86.

To map and evaluate the granular aggregate resources of the Tabusintac River, Wishart Point, Burnsville, Tracadie, Grande-Anse, Caraquet, Lac-Baker, Connors, Little Black River and Estcourt, 1:50 000 scale N.T.S. map areas.

569. WHITE, G.V., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Evaluation of selected dimension stone sites in British Columbia, 1985-.

The project will identify dimension stone deposits suitable for development. Collected samples will be processed into sample sets, which will be used for marketing the stone and its products outside of British Columbia.

570. WHITE, G.V., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
The Lang Bay germanium prospect (92F/16W), British Columbia, 1985.

See:

Preliminary report – Lang Bay germanium prospect (92F/16W); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 86-1, 1986.

The Lang Bay germanium prospect is located in a small outlier of sedimentary rocks on the western edge of the Coast Plutonic Complex. The purpose of our program was to examine sediments in the outlier and identify the beds with reported anomalous germanium values.

571. WHITE, G.V., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
The O'Connor River gypsum prospect (114P/10E), British Columbia, 1985.

See:

British Columbia Ministry Energy, Mines, Petrol. Res., Paper 86-1, 1986.

The O'Connor River gypsum deposit is situated within the Alexander Terrane of the Insular Tectonic Belt. The deposit was evaluated during 1985 to obtain independant information about the location, size and type of gypsum deposit.

MINERAL DEPOSITION EXPLORATION/ EVALUATION/RECHERCHE ET ÉVALUATION DES GÎTES MINÉRAUX

572. ALLDRICK, D.J., SINCLAIR, A.J., ARMSTRONG, R.L., GODWIN, C.I., Univ. British Columbia (Geological Sciences):
Metallogeny of the Stewart Mining Camp, British Columbia, 1983-87; Ph.D. thesis (Alldrick).

See:

Uranium-lead age determinations in the Stewart area; British Columbia Ministry Energy, Mines, and Petrol. Res., Paper 1986-1, p. 217-218, 1986.

Analysis of the formation of the major gold, silver-gold, and silver vein deposits hosted in Lower Jurassic volcanic stratigraphy.

573. ANDERSON, A.J., CLARK, A.H., Queen's Univ. (Geological Sciences):
Evolution of Kamativi Sn(-Ta,Li) pegmatite system, western Zimbabwe, 1984-86; Ph.D. thesis (Anderson).

Kamativi represents the only large tin pegmatite mineable in bedrock. Mineralogical and fluid inclusion techniques will be employed to define conditions of mineralization.

574. ANDREW, K.P.E., GODWIN, C.I., Univ. British Columbia (Geological Sciences):
Geology and genesis of the Wolf epithermal precious metal prospect, central British Columbia, 1985-87; M.Sc. thesis (Andrew).

See:

Wolf epithermal precious metal vein prospect, central British Columbia (93F/03/W); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 317-320, 1986.

The Wolf epithermal-gold prospect defines a previously unrecognised new area in British Columbia for exploration. A detailed knowledge of the geology and genesis of this prospect should define significant criteria for the evaluation of other gold properties and showings in central British Columbia.

575. ANDREWS, A.J., Ontario Geol. Surv.:
Alteration, metamorphism and structure associated with Archean, volcanic-hosted gold deposits: Observations in the Red Lake District, Ontario, 1982-87.

See:

Alteration, metamorphism and structure associated with Archean, volcanic-hosted gold deposits: studies in the Campbell and A.W. White Mines; Ontario Geol. Surv., Misc. Paper 126, p. 193-200, 1985.

576. ANDREWS, A.J., OWSIACKI, L., KERRICH, R., STRONG, D.F., MUSLIWEC, A., YORK, D., CORFU, F., Ontario Geol. Surv.:
Geology, petrography and geochemistry of the Ag-sulpharsenide vein deposits near Cobalt and Gowganda, Ontario, 1982-86.

To characterize the probable source, transport medium and depositional environment of these deposits, approached on the basis of detailed mapping, sampling, petrographic and geochemical analysis of six mine environments in three camps.

577. BACHINSKI, D.J., KETTLES, K., Univ. New Brunswick (Geology):
Mafic volcanic associated Fe-Cu-Zn sulfide mineralization in the 'ophiolitic' Fournier Group, northern New Brunswick, 1984-; M.Sc. thesis (Kettles).

578. BEAUDOIN, G., SCHRIJVER, K., ASSAD, R., INRS-Géoressources, Université Laval (Geologie et minéralogie):
Études métallogéniques comparatives des indices de barytine du Paléozoique et/ou du Protérozoique, Québec et Ontario, 1985-87.

Caractérisation des paragnèses, des pièges structuraux et physico-chimiques, de l'âge et du potentiel minéral des indices. La cartographie et la pétrographie de l'indice de Rivière-du-Loup et la cartographie de l'indice de St-Fabien sont terminées alors que la pétrographie à St-Fabien est en cours.

579. BEAUDOIN, A., PERRAULT, G., École Polytechnique (Génie minéral):
Pétrographie et minéralogie de l'altération reliée au gîte aurifère Dest-Or, Abitibi, Québec, 1983-85; M.Sc.A. (Beaudoin).

Ce projet est terminé et il a atteint les objectifs prévus: Le gîte Dest-Or est enveloppé d'un halo d'or (40 ppb Au) d'une portée d'environ 100 m et la minéralogie de l'altération hydrothermal est maintenant bien connue.

580. BELL, R.T., Geol. Surv. Can.:
Geology of uranium resources of Canada, 1975-.

See:

Megabreccias in northeastern Wernecke Mountains, Yukon Territory; Geol. Surv. Can., Paper 86-1A, p. 375-384, 1986.

Age relationships from U-Th-Pb isotope studies of uranium mineralization in Wernecke breccias, Yukon Territory; ibid., p. 385-391, 1986.

581. BOULANGER, J., ASSAD, R., SCHRIJVER, K., BROUILLETTE, P., Université Laval (Géologie et minéralogie), INRS-Géoressources:
Synthèse minéralogique et métallogénique d'indices d'uranium/cuivre du Protérozoique, lac Minowean, Fosse du Labrador, Québec, 1985-87.

Identification des espèces minérales et caractérisation des paragenèses ainsi que des principaux contrôles de mises en place des différents indices. La cartograpie de la région et des indices est terminée et l'étude minéralogique est en cours.

582. BOURGAULT, G., PERRAULT, G., École Polytechnique (Génie minéral):
Étude de la carbonatisation et de la minéralisation aurifère – indice Swanson, Barraute, Québec, 1984-86; M.Sc.A. (Bourgault).

Voir:

Distribution de l'or dans la syénite de l'indice minéralisé Swanson, Canton de Barraute, Québec; Réunion annuelle conjointe, Assoc. Géol. Can. – Assoc. Minéral. Can. – Union Can. Géophysique, Programme et résumés, vol. 11, p. 47, 1986.

95%+ de l'or est contenu dans la syénite et 5%-dans les veines de quartz qui recoupent la syénite. L'or des veines de quartz est une remobilisation de l'or de la syénite. La recherche des intrusifs felsiques riches en or (>100 ppb Au) est un excellent élément stratégique dans la recherche des gîtes d'or.

583. BROUILLETTE, P., CHEVÉ, S., BÉLANGER, M., INRS-Géoressources, Ministère de l'Énergie et des Ressources du Québec:
Métallogénie de la région des Lacs Minowéan, du Portage et Otelnuc, Fosse du Labrador, 1985-87.

Voir:

Étude géologique et métallogénique de la région des Lacs Minowéan et du Portage, Fosse du Labrador; MERQ, DP 85-28, 1986.

Une compréhension des contextes lithostratigraphique, structural et sédimentologique des minéralisations uranifères de la région; une connaissance de leur minéralogie.

584. BRISTOL, C.C., Brandon Univ. (Geology):
Effects of metamorphism on the ore textures of sulphide ore deposits, 1982-.

585. BRISTOL, C.C., FROESE, E., Brandon Univ. (Geology), Geol. Surv. Can.:
Geology of the Osborne Lake orebody and the effects of high grade metamorphism on its alteration, 1985-86.

586. BROPHY, J.A., Indian Affairs and Northern Development (NAP) Canada:
Investigation of turbidite-hosted auriferous quartz veins in the Yellowknife Supracrustal Basin, District of Mackenzie, Northwest Territories, 1985-88.

To establish whether or not there are geochemical, petrological, lithological or structural signatures in the country rocks that can be used during reconnaissance to focus exploration in areas having the highest potential for hosting economically viable auriferous quartz-vein deposits. Ancillary objectives of this investigation are to elucidate the relationships between quartz veining, gold mineralization, and the complex deformational history of the basin. This study is being confined mainly to greenschist-grade rocks because they are structurally and petrologically more simple to interpret than their amphibolite-grade counterparts.

587. CHARTRAND, F., BROWN, A., École Polytechnique (Génie minéral):
La mise en place diagénétique de la minéralisation stratiforme de cuivre à Redstone, T.N. et à Kamoto, Zaire, 1980-86; thèse de doctorat (Chartrand).

La recherche concerne la définition détaillée de la mise en place de la minéralisation stratiforme de cuivre à Redstone, T.N.-O. et de son analogue à Kamoto, Zaire. Un modèle diagénétique dans une série red-bed/sabkhas s'applique.

588. CHERRY, M.E., Ontario Geol. Surv.:
Lithophile mineralization in granitic terrains, northwestern Ontario, 1985-87.

589. CHEVÉ, S., INRS-Géoressources, Québec Ministère Énergie et ressources:
Métallogénie des secteurs des lacs Romanet et Dunphy (implications métallogéniques dans la zone centrale-nord de la Fosse du Labrador), Québec, 1982-86.

See:

Cryptalgalaminate dolomite of the Dunphy Formation, Labrador Trough: diagenetic and tectonometamorphic evolution related to copper mineralization; Can. J. Earth Sci., vol. 22, p. 1835-1857, 1985.

590. CHEVÉ, S., BÉLANGER, M., INRS-Géoressources, Ministère de l'Énergie et des Ressources du Québec:
Métallogénie de la région des Lacs Romanet et Dunphy, Fosse du Labrador, 1982-86.

Voir:

Evaluation régionale des métallotectes identifiés dans les secteurs des Lacs Romanet et Dunphy, Fosse du Labrador, Nouveau-Québec; MERQ, MB 85-64, 1976.

Une compréhension des métallotects dans la région des Lacs Romanet et Dunphy, et une évaluation de leur importance régionale.

591. CHORLTON, L.B., Ontario Geol. Surv.:
Geological setting of gold mineralization in the west part of the Shebandowan greenstone belt, northwest Ontario, 1984-86.

See:

Geological setting of gold mineralization in the western Shebandowan greenstone belt, northwestern Ontario; Ontario Geol. Surv., Misc. Paper 126, 1985.

592. CLARK, A.H., Queen's Univ. (Geological Sciences):
Evolution and origin of multi-stage lithophile-metal provinces, 1980-.

Geological, geochronological and petrochemical data for several key polyphase Sn-W Provinces (C. Andes, SE Asia, S. Korea, northwestern Argentina) are under assessment.

593. CLARK, A.H., Queen's Univ. (Geological Sciences):
Metallogenetic evolution of the Central Andean Orogen, 1980-.

Continuing research permits elaboration of a metallogenetic model grounded on a magmatic source for the ore metals, and on qualitative control on metal specification by crustal "contamination" of magmas.

594. CLARK, A.H., Queen's Univ. (Geological Sciences):
Characterization of scheelite – molybdenite "Complex" skarn and stockwork deposits, 1982-87.

The Salient features of this widespread, but poorly-defined, class of W-Mo deposits are established from numerous examples (e.g. Mt. Reed, Logtung, Boya, Lake George, Mistberget, Auxelles, etc.).

595. CLARK, A.H., Queen's Univ. (Geological Sciences):
Characterization of epithermal tungsten deposits, 1985-88.

Felbertite-bearing veins and breccia pipes represent unusually high-grade exploration targets. The ore-type is defined on the basis of the Khao Soon and Doi Ngom (Thailand), Palca XI (Peru) and Boulder Co. (Colorado) examples.

596. CLARK, A.H., BOWMAN, J.R., KEITH, J.D., MATHIESON, G.A., Queen's Univ. (Geological Scienes):
Genesis of Canada tungsten scheelite skarn mineralization, Tungsten, Northwest Territories, 1972-88.

See:

The Cantung E-Zone Scheelite Skarn orebody, Tungsten, Northwest Territories: oxygen, hydrogen and carbon isotopic studies; Econ. Geol., vol. 80, p. 1872-1895, 1985.

Continuing research on this unusually-rich tungsten skarn demonstrates the extent to which it departs from the "cordilleran norm". New work on the parental intrusive rocks and their alteration begins in 1986.

597. CLARK, A.H., JOHNSON, P.L., WASTENEYS, H.A., Queen's Unvi. (Geological Sciences):
Intrusive phreatic breccias associated with epithermal silver deposits, southern Peru, 1984-87.

Phreatic breccias appear to be ubiquitous in the Ag deposits of southern Peru. Their non-recognition in the past has generated several erroneous ore-genetic models. Microscopic deformation features imply extreme strain rates during brecciation.

598. CLARK, A.H., PALMA, V.V., KONTAK, D.J., Queen's Univ. (Geological Sciences):
Genesis of San Rafael Sn-Cu lode system, southern Peru, 1984-86; M.Sc. thesis (Palma), Ph.D. thesis (Kontak).

To provide basic documentation of an unusually-rich (3% Sn) vein deposit in the Central Andean tin belt. Paper in preparation.

599. CLARK, A.H., TOSDAL, R.J., FARRAR, E., Queen's Univ. (Geological Sciences):
Age and geomorphological environment of supergene sulphide enrichment in Toquepala, Quellaveco and Cuajone Porphyry deposits, southern Peru, 1980-86.

Geomorphological studies permit definition of the major controls on enrichment of these large deposits and correlation with alteration episodes elsewhere in Central Andes.

600. CLARK, A.H., TRUDU, A.G., Queen's Univ. (Geological Sciences):
"Volcanogenic" scheelite deposits: a reassessment, 1983-87.

We propose that the Felbertal (Austria) and Ogbang (S. Korea) scheelite deposits represent epigenetic, granite-related, quartz vein swarms in immediate exocontact settings. Evidence for volcanic-exhalative processes is unconvincing.

601. COLVINE, A.C., Ontario Geol. Surv.:
Gold mineralization in Archean terrains in Ontario, 1982-88.

602. CROCKET, J.H., McMaster Univ. (Geology):
A rare earth element study of felsic plutonic stocks from the Timmins mining camp, Ontario, 1983-.

To compare the detailed geochemistry and petrology of felsic plutons from auriferous and non-auriferous environments in the Timmins mining district. Rocks from the Dome and Hollinger Mines have been extensively sampled in this project.

603. CROCKET, J.H., GRUNDY, H.G., INMAN, J.H., McMaster Univ. (Geology):
Fluid inclusion studies of the Croesus vein system, Munro Township, Ontario, 1983-; M.Sc. thesis (Inman).

A study of fluid inclusions in the gold-bearing Croesus vein and other associated non-auriferous veins in Munro Township, Ontario.

604. CROCKET, J.H., SHAW, D.M., MORITZ, R.P., McMaster Univ. (Geology):
Genesis of a gold-bearing fuchsite-quartz vein in the Dome Mine, Timmins, Ontario, 1984-; Ph.D. thesis (Moritz).

To evaluate the relative importance of deep and/or upper crustal sources for an important gold ore type in the Dome Mine. Underground mapping, sulfur and lead isotopes and trace element geochemistry studies have been applied to the problem.

605. CROCKET, J.H., GOODFELLOW, W.D., MCINNES, B.I., McMaster Univ. (Geology), Geol. Surv. Can.:
A study of Tertiary epithermal gold mineralization, Mount Freegold, Yukon Territory, 1985-; M.Sc. thesis (McInnes).

To evaluate sources of hydrothermal fluids instrumental in deposition of gold – base metal veins in a Tertiary, epithermal vein system at Mount Freegold, Yukon. Fluid inclusion, oxygen and sulfur isotope studies are in progress.

606. DE ST. JORRE, L., SMITH, D.G.W., Univ. Alberta (Geology):
Economic mineralogy of the T-zone deposits, Thor Lake, Northwest Territories, 1985-86; M.Sc. thesis (de St. Jorre).

To examine in detail the mineralogy of the potential by-product metals (Y, REEs, Nb, Zr and Ga) of the T-zone beryllium deposits, Thor Lake, Northwest Territories, Canada. This is being carried out by a combination of optical, electron microprobe and x-ray diffraction techniques.

607. DILABIO, R.N.W., Geol. Surv. Can.:
Drift prospecting methods and models, 1978-.

608. DUNSMORE, H.E., Geol. Surv. Can.:
Geology of uranium resources of Canada, 1976-.

609. DUSSAULT, C., DARLING, R., École Polytechnique (Génie minéral):
Minéralogie et paragénèse des veines aurifères de la mine Ferderber, Val d'Or, Québec, 1983-86; M.Sc.A. (Dussault).

610. ELLIS, E., Indian Affairs and Northern Development (NAP) Canada:
Study of gold in the western granodiorite, 1985-.

611. FYSON, A.J., LANE, L., Ontario Geol. Surv., Carleton Univ. (Geology):
Lithological, structural and alteration patterns in the Confederation Lake Greenstone Belt related to gold mineralization, 1985-87.

See:

Structural geology and alteration patterns related to gold mineralization in the Confederation Lake area; Ontario Geol. Surv., Misc. Paper 126, 1985.

612. FYSON, W.K., BROPHY, J.A., PADGHAM, W.A., Univ. Ottawa (Geology), Indian Affairs and Northern Development (NAP) Canada:
Studies of turbidite hosted gold-quartz veins in Slave Structural Province turbidites, 1984-88.

To develop an understanding of the timing of Yellowknife Domain (Turbidite hosted) auriferous quartz veins relative to the structures developed in the hosting rocks, to develop a metallogenic model, and develop exploration and development tactics and methods for these deposits.

613. GABA, R., THEYER, P., Univ. Western Ontario (Geology), Manitoba Dept. Energy and Mines (Geol. Services):
The Gatlan gold occurrence, Wallace Lake, Manitoba, 1984-86; M.Sc. thesis (Gaba).

The understanding of the genesis of the Gatlan Mineral Occurrence is expected to provide insights into the significance tectonism versus petrology of host rocks in gold mineralizations on Wallace and Siderock Lakes (southeastern Manitoba).

614. GALE, G.H., Manitoba Dept. Energy and Mines (Geol. Services):
Lead-zinc in Paleozoic rocks of Manitoba, 1984-86.

615. GANDHI, S.S., Geol. Surv. Can.:
Geology of uranium resources of Canada, 1977-.

616. GAUTHIER, M., Université du Québec à Montréal:
Gîtologie, région de l'Estrie, Québec, 1984-87.

Réaliser l'étude gîtologique des indices, des gîtes et des gisements de l'Estrie; classifier les gîtes; et modifier les fiches de gîte.

617. GEBERT, J., FOX, J., BÉLANGER, M., IREM-MERI, Ministère de l'Énergie et des Ressources du Québec:
Métallogénie de Cu-Zn-Pb-Ag-Au de la partie sud de la partie sud de la Fosse du Labrador, 1985-87; thèse de maîtrise (Gebert).

Connaissance des processus de concentration des minéralisations de Cu-Zn-Pb-Ag-Au; caractérisation des métallotectes régionaux; évaluer le potentiel aurifère du secteur.

618. GENEST, S., KISH, L., IREM-MERI, Ministère de l'Énergie et des Ressources du Québec:
Compilation géoscientifique et analyses lithostratigraphique, structurale et métallogénique du Bassin d'Otish, Québec, 1985-86.

619. GILBERT, M., HUBERT, C., DARLING, R., École Polytechnique (Génie minéral):
Geology of the Lac Pelletier gold prospect, Rouyn, Quebec, 1984-86; M.Sc.A. (Gilbert).

620. GIOVENAZZO, D., LAMOTHE, D., Ministère de l'Énergie et des Ressources du Québec:
Synthèse métallogénique de la Fosse de l'Ungava: Région du Lac Bélanger et des Lacs Nuvilik, 1983-86.

Voir:

Étude des indices minéralisés du secteur central de la Fosse de l'Ungava: Régions du Lac Bélanger, des lacs Nuvilik et du Lac Kenty; MERQ, DP 86-04, 1986.

Ce travail vise une compréhension des métallotectes dans la Fosse de l'Ungava (ceinture de Cap-Smith).

621. GIRARD, R., WOUSSEN, G., BÉLANGER, M., Unive sité du Québec à Chicoutimi, Ministère de l'Énergie et des Ressources du Québec:
Lithostratigraphie et métallogénie des séquences métavolcaniques et roches associées de la Rivière Déat, Nouveau-Québec, 1983-87; thèse de maîtrise (Girard).

Voir:

Géologie et tectonique de la région de la Rivière Déat, Nouveau-Québec; MERQ, DP 85-27, 1986.

Une compréhension du contexte lithostratigraphique et des métallotectes de la région de la Rivière Déat.

622. GODWIN, C.I., ANDREW, A., GAUTIER, F., GABITES, J., Univ. British Columbia (Geological Sciences):
Plumbotectonics of Canadian Cordillera with emphasis on applications to mineral exploration, 1980-.

623. GOWER, S.J., CLARK, A.H., HODGSON, C.J., Queen's Univ. (Geological Sciences):
Genesis of skarn-stockwork W-Mo mineralization, Mount Reed-Mount Haskin District, northern British Columbia, 1982-85; M.Sc. thesis (Gower).

See:

Tungsten-molybdenum skarn and stockwork mineralization, Mount Reed-Mount Haskin District, northern British Columbia; Can. J. Earth Sci., vol. 22, p. 728-747, 1985.

Although low-grade, this Eocene centre is unusually complex in both mineralogy and structure. Our work demonstrates for the first time that intrusion at Mount Reed was polyphase.

624. GROSS, G.A., Geol. Surv. Can.:
Geology and appraisal of metalliferous sedimentary iron and manganese resources, 1957-.

625. HASSAN, H.H., HALE, W.E., Univ. New Brunswick (Geology):
Distribution of uranium and thorium in rocks of southwestern New Brunswick, 1985-86.

626. HEATHER, K.B., Ontario Geol. Surv.:
Gold mineralization in the Mishibishu Lake area, Thunder Bay District, northwestern Ontario, 1985-86.

See:

Gold showings of the Mishibishu Lake area, Thunder Bay District; Ontario Geol. Surv., Misc. Paper 126, p. 83-89, 1985.

627. HENDERSON, J.R., Geol. Surv. Can.:
Meguma gold in the Ecum Secum-Liscomb area, Nova Scotia, 1982-.

628. HÉROUX, Y., INRS-Géoressources:
Pétrographie des matières organiques en relation avec les minéralisations de sulfures, 1985-88.

Typologie, maturation, altération des matières organiques dans les séquences minéralisées ordoviciennes à dévoniennes de la Gaspésie; coopération avec D. Sangster pour une application au gîte de Yava, N. Ecosse; coopération avec G. Anderson pour une application au gîte de Magmont, Missouri.

629. HOY, T., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Stratbound base metal deposits and carbonatite deposits, Frenchman Cap area, Shuswap Complex, southeastern British Columbia, 1978-86.

See:

Carbonatites and assocaited alkalic rocks, Perry River and Mount Grace areas, Shuswap Complex, southeastern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 69-88, 1986.

630. HOY, T., British Columbia Ministry Energy Mines, Petrol. Res. (Geol. Br.):
The Purcell Supergroup in southeastern British Columbia: tectonics, sedimentation and mineral deposits, 1976-86.

Focuses on the structural and tectonic setting of stratabound Pb-Zn deposits in the Purcell Supergroup in southeastern British Columbia. A major part of the project involves regional mapping at 1:50 000 scale.

631. HOY, T., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Volcanogenic massive sulphide and Pb-Zn deposits in the Adams Plateau – Barriere region, southeastern British Columbia, 1984-.

See:

Rea gold (Hilton) and Homestake volcanogenic sulphide-bariet deposits, southeastern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 59-68, 1986.

Mineral deposits of the Birk Creek area: an introduction to a metallogenic study of the Adams Plateau-Clearwater region; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 67-76, 1985.

A study of the geology, setting and age of volcanogenic and clastic hosted precious and base metal deposits in the Barriere-Adams Plateau area, southeastern British Columbia.

632. JAMES, R.S., Laurentian Univ. (Geology):
New data on the geology of the Ore Zone, Kanichee Intrusion, Temagami, Ontario.

See:

Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 85, 1986.

633. JEFFERSON, C.W., Geol. Surv. Can.:
Regional mineral resource assessment, northern Canada, 1984-.

See:

Preliminary account of the geology around Wager Bay, District of Keewatin; Geol. Surv. Can., Paper 86-1A, p. 159-176, 1986.

634. JOHNSON, P.L., CLARK, A.H., Queen's Univ. (Geological Sciences):
Genesis of Cacachara epithermal Ag(-Pb,Zn) deposit, southern Peru, 1983-86; M.Sc. thesis (Johnson).

Vein systems transect Upper Miocene rhyodacitic flow-dome, and were nucleated by intrusive phreatic breccia dykes.

635. KEARVELL, G., CLARK, T., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Brèches, altérations sodiques et minéralisations de la vallée Mistamisk-Romanet, Fosse du Labrador, 1984-86.

Voir:

Brèches et altérations albitiques de la Rivière Romanet, Fosse du Labrador; MERQ, DP 85-24, 1986.

Caractérisation des altérations sodiques; origine des brèches; évaluation du potential de secteur pour l'or et l'uranium.

636. KEITH, J.D., CLARK, A.H., HODGSON, C.J., Queen's Univ. (Geological Sciences):
Characterisation of granitoid rocks associated with tungsten skarn deposits of North American Cordillera, 1983-86.

A common denominator amongst all intrusive rocks associated with major scheelite skarn deposits is a lack of early titanian accessory minerals.

637. KIRKHAM, R.V., Geol. Surv. Can.:
Geology of copper and molybdenum deposits in Canada, 1970-.

638. KISH, L., Ministère de l'Énergie et des Ressources du Québec:
Métallogénie de l'uranium de la Région de Johan-Beetz, Québec, 1981-87.

Une connaissance de la genèse des minéralisations en uranium de la région; une évaluation du potentiel minéral de la région.

639. KLASSEN, R.A., Geol. Surv. Can.:
Uranium drift prospecting techniques; Lower Kazan River area, District of Keewatin, 1975-.

640. KONTAK, D.J., CLARK, A.H., Queen's Univ. (Geological Sciences):
Metallogenetic evolution of southeastern Peruvian segment of Central Andean tin belt, 1982-86; Ph.D. thesis (Kontak).

See:

Exploration criteria for Sn and W mineralization in the Cordillera Oriental of southeastern Peru; CIM Conf. "Granite Related Mineral Deposits: Geology Petrogenesis and Tectonic Setting", Halifax, 1985.

This segment of the tin belt comprises 4 epochs of Sn-polymetallic mineralization related to crust-derived peraluminous magmas. However, metallogenetic models involving crustal recycling on tin are shown to be inapplicable.

641. LACROIX, R., GAUMOND, A., LAO, K., BELAND, J., PERRAULT, G., École Polytechnique (Génie minéral):
Gîtologie de la mine New Pascalis, Québec, 1983-86; M.Sc.A. (Lacroix).

Voir:

Metamorphic fluid of New Pascalis gold deposit, Val d'Or, NW Quebec; Réunion annuelle conjointe, Assoc. Géol. Can. – Minéral. Assoc. Can. – Union Can. Géophysique, Programme et résumés, vol. 11, p. 89, 1986.

Ce gîte est complexe; sa géochimie ne se résume pas utilement en moins de 100 mots. La minéralisation aurifère a son lien dans un réseau de veines subverticales et subhorizontales. Le fluide minéralisateur des veines subverticales est surtout carbonique et contient beaucoup de S; celui des veines subhorizontales est aussi carbonique et contient beaucoup de Cl mais peu de S.

642. LACROIX, S., DARLING, R., École Polytechnique (Génie minéral):
Mineralogy and geology of the Ni-Cu deposits, Lac Aulneau, Labrador Trough, 1983-86; M.Sc.A. (Lacroix).

643. LAO, K., PERRAULT, G., École Polytechnique (Génie minéral):
Les inclusions fluides de la minéralisation aurifère de la mine Sigma-2 et du granophyre encaissant, Québec, 1984-86.

Voir:

Thermo-chemistry of aqueous fluid related to the formation of Sigma-2 gold deposit, Val d'Or, Quebec; Réunion annuelle conjointe, Assoc. Géol. Can. – Minéral. Assoc. Can., Programme et résumés, vol. 10, p. A31, 1985.

Le fluide du quartz aurifère de Sigma-2 est aqueux avec environ 10% CO_2 et salin (11% pds éq. NaCl) et contient un peu de Ba. Le fluide du quartz du granophyre est strictement aqueux, salin (25%) et contient du Ba. Le fluide métamorphique est aqueux et carbonique. Il est probable que le fluide minéralisateur est un mélange des deux autres.

644. LAPORTE, P.J., Indian Affairs and Northern Development (NAP) Canada:
Gold potential of the Ketyet River and Woodburn Lake groups, Tehek Lake area, Northwest Territories, 1985-86.

See:

Indian Affairs and Northern Development Canada, EGS 1985-11, 1986.

645. LAZNICKA, P., Univ. Manitoba (Earth Sciences):
Giant ore deposits of the world: interpretation, prediction, 1980-.

646. LAZNICKA, P., WADIEN, R., Univ. Manitoba (Earth Sciences):
Geological setting and origin of Vamp Lake sulphide deposit, Manitoba, 1985-87; M.Sc. thesis (Wadien).

647. LEITCH, C.H.B., GODWIN, C.I., Univ. British Columbia (Geological Sciences):
Geology of the Bralorne-Pioneer Au camp, British Columbia: wall-rock alteration, fluid inclusion, and isotope geochemistry, 1985-; Ph.D. thesis (Leitch).

See:

Bralorne-Pioneer gold camp; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 311-317, 1986.

The Bralorne-Pioneer mesothermal vein gold camp produced more gold than any other in British Columbia yet is poorly understood in terms of modern, research methods. More detailed understanding of the ore-fluid chemistry and alteration will lead to better definition of the genesis of this important deposit.

648. LONG, D.G.F., COLVINE, A.C., Laurentian Univ. (Geology), Ontario Geol. Surv.:
Huronian mineral deposits in the Cobalt Embayment, 1981-87.

See:

Geology and placer related gold potential of the Huronian Supergroup in part of the northwestern Cobalt Plain; Ontario Geol. Surv., Misc. Paper 126, p. 242-246, 1985.

Preliminary investigation of the sedimentology of auriferous strata in the early Aphebian (Huronian) Lorrain Formation, between Sault Ste. Marie and Sudbury, Ontario; Geol. Surv. Can., Paper 85-1A, p. 97-101, 1985.

To determine relationships between sedimentology and gold mineralization in the Huronian Supergroup.

649. LYDON, J.W., Geol. Surv. Can.:
Geology of lead and zinc resources of Canada, 1977-.

650. MACDONALD, A.J., Ontario Geol. Surv.:
Gold mineralization: the role of banded iron formation, porphyry intrusions and deformation zones, 1982-87.

See:

Gold mineralization in Ontario I: the role of banded iron formation; CIMM Spec. Vol. 34, 1985.

651. MACDONALD, D.E., MORTON, R.D., Alberta Research Council (Geol. Surv.):
Phosphate evaluation study, 1978-85.

652. MACINTYRE, D.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Mineral deposits of the Alexander Terrane, northwestern British Columbia, 1982-.

See:

Geochemistry of basalts hosting massive sulphide deposits, Alexander Terrane, northwestern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 197-210, 1986.

A late Triassic bimodal suite of calcalkaline submarine flows hosts both massive Cu-Co-Au deposits such as Windy Craggy and polymetallic massive sulphide and barite deposits such as Greens Creek and Glacier Creek. These rocks and associated deposits formed in a back arc basin.

653. MARMONT, S., Ontario Geol. Surv.:
Geological setting of the Detour Lake Mine and surrounding area, northeastern Ontario, 1984-87.

See:

Geology of the Detour Lake Mine and surrounding area; Ontario Geol. Surv., Misc. Paper 126, 1985.

654. MCALLISTER, A.L., BACHINSKI, D.J., OLSEN, P.E., Univ. New Brunswick (Geology):
The nature, distribution and depositional control of gold mineralization at Brunswick No. 12 mine, Bathurst, New Brunswick, 1985-88; Ph.D. thesis (Olsen).

To establish the relationship of Au minerals to stratigraphic units, structures and hydrothermal alteration zones.

655. MCALLISTER, A.L., BACHINSKI, D.J., RUDNICK, B., Univ. New Brunswick (Geology):
A study of the geology and exploration of a pyrrhotite deposit in Precambrian super crustal units, Cuttingsville, Vermont, 1982-87; M.Sc. thesis (Rudnick).

Massive sulphides, mainly pyrrhotite are enclosed in Grenvillian age rocks which are highly metamorphosed and deformed at least three times. The sulphides are mainly stratiform and believed to have been deposited during sedimentation or diagenesis, but later recrystallized and in part remobilized.

656. MCLEOD, M.J., RUITENBERG, A.A., New Brunswick Dept. Forests, Mines, Energy (Geol. Surv. Br.):
Geochemistry South, 1985-; M.Sc. thesis (McLeod).

An evaluation of granitoid related mineralization in southern New Brunswick with emphasis on greisen environment.

657. MCNUTT, R.H., CROCKET, J.H., HURLEY, T.D., McMaster Univ. (Geology):
Petrology and geochemistry of the volcanic host rocks to the West and North Pits of the Sherman Mine iron formation, Temagami, Ontario, 1983-; M.Sc. thesis (Harley).

See:

Geological and geochemical studies of the Boston and Temagami iron formations and their contiguous volcano sedimentary piles; Ontario Geol. Surv., Misc. Paper 132, p. 72-83, 1986.

The study involved detailed mapping of volcanic stratigraphy in the vicinity of the Sherman Mine, Temagami. Rare earth element studies were used as an aid in interpreting volcanic activity associated with iron formation deposition.

658. METHOT, Y., TRUDEL, P., École Polytechnique (Génie minéral):
Distribution de Au, As, Sb et W autour du gîte d'or de la mine Eldrich, Rouyn, Québec, 1985-87; M.Sc.A. (Methot).

659. MICHEL, S.G., BROWN, A., École Polytechnique (Génie minéral):
Le caractère métallogénique des indices aurifères à Mont-Organisé, Haiti, 1983-86; M.Sc.A. (Michel).

La caractérisation de la minéralisation en Au-Cu à Mont-Organisé, Haiti.

660. MORETON, E.P., CLARK, A.H., Queen's Univ. (Geological Sciences):
Genesis of Boya W-Mo skarn – stockwork prospect, northern British Columbia, 1983-86; M.Sc. thesis (Moreton).

The Cretaceous Boya Deposit has been thrust eastwards onto the eastern marginal belt.

661. MUMIN, H., SCOTT, S.D., BRYNDZIA, L.T., Univ. Toronto (Geology):
Lithogeochemistry of altered rocks in the vicinity of massive sulfide deposits, Sturgeon Lake, northwestern Ontario, 1985-87; M.Sc. thesis (Mumin).

To tie in the relationships among stratigraphy, alteration, structure and massive sulphide deposition in the South Sturgeon Lake volcanic pile. Several economically mineralized areas are being examined in detail as well as a general areal reconnaissance.

662. NIMPAGARITSE, G., PERRAULT, G., École Polytechnique (Génie minéral):
Le gîte de vanadium de Mukanda, Burundi, Afrique, 1984-86; M.Sc.A. (Nimpagaritse).

Ce gîte de vanadium est parmi les gîtes les plus riches au monde: le vanadium est associé à des magnétites titanifères, qui, elles sont associées à des massifs d'anorthosite. Nous espérons poser quelques jalons quant à la géochimie du vanadium et son rôle dans l'évolution tardimagmatique.

663. O'REILLY, G.A., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith, mineral deposit studies, Nova Scotia, 1985-87.

Examine lateral and vertical variations within a shear zone controlled manganiferous zone within granodiorite of the peraluminous South Mountain Batholith. To determine the source genesis and age of the mineralizing episode.

664. PANTELEYEV, A., SCHROETER, T.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Gold deposits of British Columbia, 1982-86.

A map and compilation of major gold producers and deposits with significant reserves in British Columbia 1894 to 1984.

665. PIROSHCO, D.W., SHIELDS, H.N., Ontario Geol. Surv.:
Geology and gold mineralization of the North Caribou Lake greenstone belt, northwestern Ontario, 1985-87.

See:

Geology and gold mineralization of the Eyapamikama Lake area of the North Caribou Lake greenstone belt; Ontario Geol. Surv., Misc. Paper 126, 1985.

Petrological studies in progress to determine alteration mineral assemblages in potential gold-bearing zones. Further field work in 1986 as part of the Opapimiskan Lake project.

666. PROCYSHYN, E.L., Ministère de l'Énergie et des Ressources du Québec:
Gîtologie des Mines Gaspé, Québec, 1982-86.

Etude surtout tectonique visant l'établissement d'un modèle de la minéralisation aux Mines Gaspé. Phase de terrain completée. Résultats attendus.

667. RAINVILLE, S., DARLING, R., BAZINET, R., ELBROND, J., École Polytechnique (Génie minéral):
Development of an exploration method for the property of les Mines Selbaie, Brouillan Twp., Quebec, 1982-86.

668. ROHON, M-L., ROGER, R., BÉLANGER, M., Université de Pierre et Marie Curie, Paris, Ministère de l'Énergie et des Ressources du Québec:
Métallogénie de Cu-Ni dans le sud de la Fosse du Labrador, 1984-87; thèse de doctorat (Rohon).

Cette étude vise une compréhension des métallotectes régionaux et de l'évolution magmatique des filons-couches ultrabasiques.

669. ROSCOE, S.M., Geol. Surv. Can.:
Metallogeny of the northwestern part of the Canadian Shield, 1977-.

See:

Felsic volcanic rocks in the Nonacho Group near Whitefish Lake, District of Mackenzie; Geol. Surv. Can., Paper 86-1A, p. 787-789, 1986.

670. RUITENBERG, A.A., MCCUTCHEON, S.R., New Brunswick Dept. Forests, Mines, Energy, (Geol. Surv. Br.):
Metallogeny of gold and tin-tungsten deposits, New Brunswick, 1983-86.

See:

Tungsten, molybdenum and tin deposits; Excursion Guide 13, Geol. Assoc. Can. – Mineral. Assoc. Can. Ann. Meeting, Fredericton, 33 p., 1985.

Gold deposits of the Bay of Fundy coastal zone; Excursion Guide 8, ibid., 1985.

To establish regional criteria for the emplacement of gold and tin-tungsten deposits.

671. RUZICKA, V., Geol. Surv. Can.:
Geology of uranium and thorium resources of Canada, 1975-.

See:

Developments in uranium geology in Canada, 1985; Geol. Surv. Can., Paper 86-1A, p. 331-340, 1986.

672. SAGE, R.P., WATKINSON, D.W., Ontario Geol. Surv.:
Alkalic rocks and carbonatites, northern Ontario, 1976-86.

See:

Alkalic rock-carbonatite complexes of the Precambrian Shield of Ontario; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophys. Union, Program with Abstracts, vol. 11, p. 122, 1986.

673. SANGSTER, D.F., Geol. Surv. Can.:
Geology of lead and zinc resources in Canada, 1965-.

See:

Isotope and hydrocarbon studies of the Yava sandstone-lead deposit, Cape Breton Island, Nova Scotia: a progress report; Geol. Surv. Can., Paper 86-1A, p. 133-140, 1986.

674. SANSFACON, R., PERRAULT, G., École Polytechnique (Génie minéral):
Gîtologie du camp de Malartic, Abitibi, Québec, 1984-87; thèse de doctorat (Sansfacon).

L'objectif est de synthétiser dans un schéma gîtologique et structural, les observations de quatre décennies d'exploitation dans ce camp minier; nous y ajouterons des observations pétrographiques et géochimiques.

675. SAVOIE, A., PERRAULT, G., École Polytechnique (Génie minéral):
Gîtologie de la mine Doyon, Québec, 1983-87; thèse de doctorat (Savoie).

Le gîte no 2 de la mine Doyon est enveloppé d'un halo d'or (50 ppb Au+) d'une largeur de 400 m. La moitié supérieure et calco-alcaline du Blake River (volcaniques) continent beaucoup d'or: 28 ppb Au.

676. SCHRIJVER, K., CHEVÉ, S.R., TASSÉ, N., INRS-Géoressources:
Évolution diagénétique, tectono-métamorphique et métallogénique (Cu) des dolomies de la Formation de Dunphy, Fosse du Labrador, Québec, 1982-87.

En préparation: Fluids in cupriferous dolostones and dolomite veins, Dunphy Formation, Labrador Trough: evidence from fluid inclusions, C-O isotopes and phyllosilicates.

677. SCHRIJVER, K., SANGSTER, D.F., INRS-Géoressources, Geol. Surv. Can.:
Études métallogéniques des indices de minéralisation (Pb-Zn-Ba) du Paléozoique, Bas Saint-Laurent et Gaspésie, Québec, 1984-89.

En préparation: Setting and petrography of vein-bound and disseminated mineral occurrences; sera suivi par des études relatives à la sédimentologie, diagenèse, évolution tectonique et métallogénique.

678. SCHROETER, T.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Muddy Lake project (104K/1), British Columbia, 1985-86.

See:

British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 175-183, 1986.

Age-dating in progress to aid in assessing age of Muddy Lake gold deposit (Chevron Res.). Determine geologic setting of new gold deposit and suggest genetic model.

679. SCHROETER, T.G., PANTELEYEV, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Gold in British Columbia, 1985-86.

To be released in March 1986, map at 1:1 000 000 showing location and data of all known past producers, current producers and signifiant deposits with reserves.

680. SCHWARCZ, H.P., CROCKET, J.H., BLUM, N., McMaster Univ. (Geology):
Geochemical studies of Archean iron formations and associated volcanic rocks, 1982-; Ph.D. thesis (Blum).

A mapping and geochemical study of Archean BIF at the Adams and Sherman Mines (Boston Tp. and Temagami, Ontario). The mapping involves detailed volcanic stratigraphy within the Adams Mine iron formation units. Oxygen isotope geochemistry studies were carried out on Sherman Mine BIF at Temagami.

681. SCOATES, R.F.J., Geol. Surv. Can.:
Regional mineral resource assessment, northern Canada, 1984-.

682. SEAL, R.R., II, CLARK, A.H., MORRISSY, C.J., Queen's Univ. (Geological Sciences):
Genesis of the Lake George, New Brunswick, W-Mo-Sb-Au base metal deposits, 1983-86; M.Sc. (Seal).

Lake George represents an unusually complex polymetallic centre, of Late Silurian age. Our preliminary model comprises four distinct metallization episodes triggered by shallow plutonic activity.

683. SINCLAIR, A.J., WHITING, B.H., Univ. British Columbia (Geological Sciences):
The lithology and lithogeochemistry of the San Antonio Gold Mine, Bissett, Manitoba, 1984-86; M.Sc. thesis (Whiting).

The host for ore, traditionally considered an intrusion, has been found to be a sequence of high-iron tholeiitic basalt flows with intercalated cherty mudstone. Geochemical patterns and mass-balance computations have shown halos to auriferous stockwork veins that enhance ability to recognize mineralized structures where gold values are sporatic.

684. SINCLAIR, W.D., Geol. Surv. Can.:
Geology of copper and molybdenum resources of Canada, 1977-.

685. SMITH, D.G.W., MORTON, R.D., Univ. Alberta (Geology):
Fluid inclusion studies of the Thor Lake rare metal deposit, Northwest Territories, 1986-88.

Fluid inclusions of the rare metal deposits, particularly those of the T-zone, are being investigated with the intention of throwing further light on the chemical and physical environment of formation.

686. SMITH, P.M., Ontario Geol. Surv., Univ. Waterloo (Earth Sciences):
The Duport Mine, a structurally controlled gold deposit, Ontario, 1984-86; M.Sc. thesis.

See:

The geological setting of the Duport Gold Mine, Shoal Lake, District of Kenora; Ontario Geol. Surv., Misc. Paper 126, p. 210-214, 1985.

To examine the interrelationships of gold mineralization at the Duport Mine with metamorphic, structural and stratigraphic parameters, and to determine the temporal-spatial relationships.

687. SWINDEN, H.S., Geol. Surv. Can.:
Metallogeny of the Buchans – Roberts Arm belt, central Newfoundland, 1985-89.

See:

Stratigraphy and economic geology of the southern part of the Roberts Arm Group, central Newfoundland; Geol. Surv. Can., Paper 86-1, p. 213-220, 1986.

To document volcanogenic mineralization on the Buchans – Roberts Arm belt, define the stratigraphic and structural settings of mineralization, identify the paleo-tectonic environment(s) of mineralization and provide guides for further exploration.

688. TASSÉ, N., INRS-Géoressources:
Gîtologie-region des basses terres du Saint-Laurent, Québec, 1984-87.

Réaliser l'étude gîtologique des indices, des gîtes et des gîsements de l'Estrie, et classifier les gîtes.

689. THEYER, P., Manitoba Dept. Energy and Mines (Geol. Services):
PGE in the Bird River Complex, Manitoba, 1982-.

Activities planned for the current year include sampling of parts of the northern limb of the BRC and of selected properties of the southern limb. This work is designed to follow-up on the successful determination of significant amounts of PGE in the BRC in 1984.

690. THORPE, R.I., Geol. Surv. Can.:
Geology of silver and gold deposits in Canada, 1968-.

691. THORPE, R.I., Geol. Surv. Can.:
Metallogeny of gold in the continental crust, 1985-.

692. TROOP, D.G., Ontario Geol. Surv.:
Mineralization and alteration processes at the Ross Mine, Holtyre, Ontario, 1985-88.

See:

Preliminary report on the geology and metasomatism at the Ross Mine and vicinity; Ontario Geol. Surv., Misc. Paper 126, p. 320-325, 1985.

693. TROTTIER, J., BROWN, A., École Polytechnique (Génie minéral):
Synthèse métallogénique des dépôts sulfureux de la ceinture ophiolitique des Appalaches du sud-est du Québec, région de l'Estrie et de la Beauce, Québec, 1984-87; thèse de doctorat (Trottier).

La caractérisation de la minéralisation Cu-Zn associée aux coups ophiolitiques Appalachiens.

694. TURNOCK, A.C., PRICE, D., MARE, P., Univ. Manitoba (Earth Sciences):
Petrology of Millrock hill, Flin Flon, Manitoba, 1985-87; M.Sc. thesis (Mare).

The petrological study should lead to an interpretation of the environment of depositon of the volcaniclastic rocks and the alteration zones within them.

695. VOGT, A.H., SCOTT, S.D., Univ. Toronto (Geology):
Critical comparison of the geology and tectonic setting of modern seafloor polymetallic sulfides with their ancient analogs, 1985-88; Ph.D. thesis (Vogt).

See:

Seafloor polymetallic sulfide deposits: modern and ancient; Marine Mining, vol. 5, no. 2, p. 191-212, 1985.

Focus on volcanic and structural development in ophiolites in relation to auriferous massive sulfide deposits; role of excess magmatism in the formation of such deposits.

696. VOS, M.A., Ontario Geol. Surv.:
Granite and anorthosite as ceramic raw materials, 1984-87.

To establish suitable sources of ceramic raw materials in bodies amenable to bulk mining and processing.

697. VU, L., DARLING, R., BELAND, J., École Polytechnique (Génie minéral):
Géologie de la mine d'or Belmoral, Val d'Or, Québec, 1983-85; M.Sc.A. (Vu).

Voir:

Géologie de la mine Belmoral, Québec; Ministère de l'Énergie et des Ressources, Rapport MB 85-41, 1985.

698. WASTENEYS, H.A., CLARK, A.H., Queen's Univ. (Geological Sciences):
Genesis of Santa Barabara epithermal Ag(-Cu,As) deposit, southern Peru, 1984-87; M.Sc. thesis (Wasteneys).

Enargite/tennantite-bearing vein systems at margin of Lower Miocene, maar-related, rhyodacitic diatreme. Mineralization superimposed upon cone-sheets of intrusive phreatic breccia.

699. WATTERS, S., RUITENBERG, A.A., New Brunswick Dept Forests, Mines, Energy (Geol. Surv. Br.), Univ. Western Ontario (Earth Sciences):
Stratigraphy, structure and gold deposition in the Bay of Fundy Coastal Zone, New Brunswick, 1985-90; Ph.D. thesis (Watters).

To solve basic structural & stratigraphic problems relevant to gold deposition along the Caledonia and St. Croix tectonostratigraphic zones of southern New Brunswick.

700. WHITTAKER, P.J., MALCZAK, J., TROOP, D.G., Ontario Geol. Surv.:
Metallogenesis of the Black River-Matheson (BRIM) area, northeastern Ontario, 1984-87.

Gold metallogenesis of deposits proximal to the Destor-Porcupine Fault Zone and a regional evaluation of the environments of gold mineralization. Work will culminate in a major paper in 1987.

701. WILTON, D.H.C., KERR, A., MACDOUGALL, C., MACKENZIE, L., VASKOVIC, M., Memorial Univ. (Earth Sciences):
Metallogeny of the central mineral belt, Labrador; Precious metal mineralization, Newfoundland; Ph.D. thesis (Kerr), M.Sc. theses (Macdougall, Mackenzie, Vaskovic).

702. YAMAMURA, B., CLARK, A.H., Queen's Univ. (Geological Sciences):
Genesis of Palca XI epithermal tungsten-polymetallic vein deposit, 1985-88; M.Sc. thesis (Yamamura).

Unusually rich and complex tungsten deposit associated with peraluminous, rare metal-enriched, Upper Miocene Macusani volcanics.

703. ZWENG, P.L., CLARK, A.H., Queen's Univ. (Geological Sciences):
Evolution of Toquepala Cu(-Mo) porphyry deposit, southern Peru, 1982-86; M.Sc. thesis (Zweng).

Investigation of the deep extension of this breccia – dominated Eocene porphyry deposit established hitherto unsuspected parallels with the classic El Salvador model.

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704. BARCLAY, J.E., Geol. Surv. Can.:
Western Canada Basin oil potential assessment, 1985-.

705. BARNES, C.R., NOWLAN, G.S., Memorial Univ. (Earth Sciences), Geol. Surv. Can.:
Thermal maturation studies in eastern Canada based on conodont alteration indices.

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Maturation studies, 1981-.

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Vitrinite reflectance measurements from the South Whale Basin, Grand Banks, Eastern Canada, and implications for hydrocarbon exploration; Geol. Surv. Can., Paper 85-1B, p. 51-57, 1985.

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Evolution of East Coast Paleozoic basins, 1984-.

708. BELL, J.S., Geol. Surv. Can.:
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Maturation thermique, potentiel pétroligène et histoire de la catagenèse des roches post-taconiques du nord-est de la Gaspésie et de l'Île d'Anticosti, Québec, 1986; thèse de doctorat.

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Zooclasts reflectance as thermal maturation indicators in the pre-Devonian sequences; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A4, 1985.

Pour atteindre les objectifs implicites dans le titre du projet, des indicateurs organiques (réflectance et pyrolyse programmée) et des argiles sont calibrés. La saisie des données est terminée, la thèse est en voie de rédaction.

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711. EMBRY, A.F., Geol. Surv. Can.:
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712. FOSCOLOS, A.E., Geol. Surv. Can.:
Diagenetic profiles for reservoir exploration – frontier basin resources, 1983-.

713. GOODARZI, F., Geol. Surv. Can.:
Temperature history of Lower Paleozoic rocks, determined by optical study of dispersed organic materials, 1982-.

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715. GRANT, A.C., Geol. Surv. Can.:
Geological interpretation of geophysical data as an aid to basin synthesis and hydrocarbon inventory, 1974-.

See:

Pisces IV research submersible finds oil on Baffin Shelf; Geol. Surv. Can., Paper 86-1A, p. 65-69, 1986.

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717. HIGGINS, A.C., Geol. Surv. Can.:
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Microfacies, diagenesis and geometry of pore system in hydrocarbon-bearing Mississippian carbonate rocks, southern Saskatchewan, 1976-88.

720. LANE, D.M., Saskatchewan Geol. Surv.:
Subsurface carbon dioxide in Saskatchewan sources and potential use in enhanced oil recovery, 1985-86.

721. MCALPINE, K.D., Geol. Surv. Can.:
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728. MCMILLAN, N.J., Geol. Surv. Can.:
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Petroleum resource evaluation of western Canada, 1978-.

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734. SKIBO, D.N., Geol. Surv. Can.:
Thermal history and basin evolution – Canadian frontier regions, 1983-.

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Metallogeny of Eastern Canada, 1984-.

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Mineral deposit documentation, Flin Flon area, Manitoba, 1984-87.

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Metallogeny of the Tulks Hill Volcanics, Victoria Lake Group, central Newfoundland; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Geology of the Jacks Pond volcanogenic sulphide prospects, Victoria Lake Group, central Newfoundland; ibid.

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Structure solution and systematics in anisodesmic minerals, 1984-.

See:

The crystal structure of wroewolfeite, a mineral with $[(Cu_4(OH)_6(SO)_4(H_2O)]$ sheets; Amer. Mineral., vol. 70, p. 1050-1055, 1985.

Schneiderhöhnite, $Fe^{2+}Fe_3^{3+}As_3^{3+}O_{13}$, a densely packed arsenite structure; Can. Mineral., vol. 23, p. 675-679, 1985.

To derive the structures of minerals deemed to be of particular interest in more general studies of structure systematics of oxysalt minerals.

783. HAWTHORNE, F.C., GROAT, L.A., RAUDSEPP, M., EWING, R., Univ. Manitoba (Geological Sciences):
Aspects of metamictization in natural titanites, 1985-.

Natural titanites which show a range of metamictization/crystallinity are being characterized by normal powder X-ray diffraction and infrared spectroscopy, single-crystal structure refinement, Rietveld structure refinement, transmission electron microscopy, EXAFS and XANES.

784. HAWTHORNE, F.C., RAUDSEPP, M., GROAT, L.A., ERCIT, L.S., Univ. Manitoba (Geological Sciences):
Applications of the Rietveld method to mineralogy and experimental petrology, 1983-; Ph.D. theses (Raudsepp, Ercit).

See:

The crystal structure of synthetic natrotantite; Bull. Minéralogie, vol. 108, p. 541-549, 1985.

785. HAWTHORNE, F.C., SMITH, J.V., Univ. Manitoba (Geological Sciences):
Aspects of three-dimensional nets, 1985-.

A systematic topologial analysis of 4-connected 3-dimensional nets is being carried out, and applied to problems of structure prediction and classification in framework silicates, aluminosilicates and aluminophosphates.

786. INFILL, R.O., CLARK, A.H., COOPER, W.C., Queen's Univ. (Geological Sciences, Metallurgical Eng.):
Elliot Lake ores, Ontario, 1983-86; M.Sc. thesis (Infill).

See:

Mineralogical controls on the oxidative acid-leaching of U and Th from Elliot Lake ores; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A29, 1985.

In addition to providing the first detailed information on Elliot Lake uranothorite, the hydrometallurgical studies define for the first time the precise dissolution behaviour of uraninite, brannerite, uraniferous leucoxene, uranothorite and monazite.

787. JAMBOR, J.L., EMR (CANMET):
Mineralogy and predictive metallurgy of the Windy Craggy massive sulphide deposit, British Columbia, 1986-88.

788. JAMBOR, J.L., CHEN, T.T., DUTRIZAC, J.E., EMR (CANMET):
Synthesis and properties of jarosite-type compounds, 1979-.

Special emphasis being placed on silver/lead losses into jarosite compounds made in the zinc industry. A recent involvement has been with Ga and Ge in iron oxide compounds.

789. JAMBOR, J.L., ROBERTS, A.C., ZAJAC, I.S., EMR (CANMET), Geol. Surv. Can., Hanna Mining Co.:
Ore mineralogy of the Strange Lake Complex, Newfoundland-Quebec, 1986-89.

790. JAMIESON, H., PETERSON, R.C., Queen's Univ. (Geological Sciences):
Cation ordering in spinels as a function of composition and temperature.

791. MANDARINO, J.A., Royal Ontario Mus. (Mineralogy and Geology), Univ. Toronto (Geology):
Mineralogy of Ontario, 1961-.

792. MANDARINO, J.A., Royal Ontario Mus. (Mineralogy and Geology), Univ. Toronto (Geology):

Mineralogy of borate minerals from New Brunswick, 1980-87.

793. MANDARINO, J.A., Royal Ontario Mus. (Mineralogy and Geology):
Mineralogy of Mont St-Hilaire, Quebec, 1986.

794. MORTON, R.D., SMITH, D.G.W., PERSAUD, E., Univ. Alberta (Geology):
Quantitative reflectance and computer-based mineral identification: their applications in the characterisation of the mineral phases in the Dawn Lake U-Ni deposit, northern Saskatchewan, 1985-86; M.Sc. thesis (Persaud).

Quantitative reflectance (NSIOMI-84) measurements are being combined with qualitative and semi-quantitative electron microprobe analyses as input data for a computer-based search/identify system (MINIDENT) which enables rapid characterisation of the complex spectrum of mineral components in the Dawn Lake deposit.

795. OTTAWAY, T.L., WICKS, F.J., Royal Ontario Mus. (Mineralogy and Geology), Univ. Toronto (Geology):
Mineralogy and geochemistry of the Colombian emerald deposits, 1981-86; M.Sc. thesis (Ottaway).

796. PETERSON, R.C., JAMIESON, H., SNYDER, J., Queen's Univ. (Geological Sciences):
Cation ordering in rock forming minerals; M.Sc. thesis (Snyder).

797. PETERSON, R.C., MACFARLANE, D.B., Queen's Univ. (Geological Sciences):
REE distribution in allanites in the Grenville Province; M.Sc. thesis (Macfarlane).

798. PLANT, A.G., Geol. Surv. Can.:
Electron beam microanalysis, 1962-.

799. SMITH, D.G.W., Univ. Alberta (Geology):
The mineralogy and chemistry of the Innisfree brecciated LL5 chondrite, 1979-88.

Innisfree appears to be an example of a regolith breccia. New polished sections of one individual from this fall reveal unusual clasts and evidence of what appears to be extraterrestrial oxidation of (Fe,Ni)-phases. Microprobe and possibly other studies of these clasts will be undertaken.

800. SMITH, D.G.W., DE ST. JORRE, L., Univ. Alberta (Geology):
Ga-induced cathodoluminescence in albite from the Thor Lake rare metal deposits, Northwest Territories, 1985-86.

Albites in parts of the T-zone of the Thor Lake rare metal deposits can contain up to 4000 ppm Ga and commonly contain 1000 ppm. Ga-rich margins show bright blue cathodoluminscence whilst the lower Ga cores (500 ppm) show a reddish cathodoluminescence, which may be related to an Fe-content of the order of 1500-2000 ppm.

801. SMITH, D.G.W., DE ST. JORRE, L., REED, S.J.B., LONG, J.V.P., Univ. Alberta (Geology), Cambridge Univ.:
Nature and origin of zonal metamictization of Zr-silictes from the Thor Lake rare metals deposits, Northwest Territories, 1985-86.

Zr-silicates occurring in the T-zone of the Thor Lake rare metals deposit show sharply zoned metamictisation. The composition of the different zones in the Zr-silicate is being investigated by a combination of ion and electron microprobe techniques, with a view to understanding the mechanism of formation and assessing the possible implications for the use of such material in dating work.

802. SMITH, D.G.W., FOLINSBEE, R.E., HUBE, D., FINSTAD, K., Univ. Alberta (Geology, Physics):
Two Alberta fireballs in 1985, 1985-86.

During 1985 two exceptional fireballs were widely observed over Alberta. In both instances there was a good possibility of a meteorite fall. A daytime fireball on March 2nd was seen from Alberta and the S. part of the Northwest Territories, and terminated near Fox Lake on the Peace River, N. Alberta. An early evening fireball on September 28th, 1985 was seen from southern and central Alberta and has a projected area of fall in Jasper National Park.

803. SMITH, D.G.W., LEIBOVITZ, D.P., Univ. Alberta (Geology):
MINIDENT: a data base for minerals and a FORTRAN 77 Program for their identification, 1981-.

MINIDENT is an interactive mineral identification and mineral data base management program, now rewritten in FORTRAN 77. Data have been stored for about 4000 mineral groups, species and varieties. These data include composition, optical properties in transmitted and reflected light, symmetry, unit cell dimensions, densities, Vickers and Mohs hardness, d-values and relative intensities of the 5 strongest X-ray powder diffraction lines, JCPDS numbers, any polymorphs, occurrences, localities, year first described and sources of the data. However, not all minerals yet have data stored for all of these field.

804. SMITH, D.G.W., MUIRA, Y., LAUNSPACH, S., Univ. Alberta (Geology), Yamaguchi Univ. (Geology):
Compositional variation and origin of metal phases in chondritic meteorites, 1979-.

The patterns of variation of the Fe, Ni and Co contents of metal phases in chondritic meteorites are being investigated by electron microprobe techniques. It is believed that this will shed light on their origin, manner of aggregation and thermal histories.

805. SMITH, D.G.W., NOREM, D., GOLD, C., Univ. Alberta (Geology):
Chemical mineralogy of clays, 1980-.

Compositional data obtained with electron microprobes and by other techniques are being used in conjunction with an extensive compositional data base for clay minerals to determine both the extent of solid solutions between clay mineral species (e.g., the smectites) and the proportions of the different clay mineral species in clays and soils.

806. WHITE, J.C., FLEET, M.E., Univ. New Brunswick (Geology), Univ. Western Ontario (Geology):
Crystallography and electron microscopy of ZnP_2, 1984-85.

807. WICKS, F.J., Royal Ontario Mus. (Mineralogy and Geology), Univ. Toronto (Geology):
The structures and crystal chemistry of the serpentine minerals, 1970-.

The lack of ordered Mg-end member lizardite crystals has lead to the use of structure modelling and Rietveld structure refinement to determine the details of this structure. High resolution transmission electron microscopy is being concentrated on lizardite to learn more about the stacking and morphology of lizardite and the serpentinization process.

808. WICKS, F.J., RAMIK, R., Royal Ontario Mus. (Mineralogy and Geology):
Thermal and evolved gas analysis of minerals, 1976-.

See:

A widksite-like mineral from the Bull Moose mine, South Dakota; Can. Mineral., vol. 23, p. 247-249, 1985.

Philipsburgite, a new copper zinc arsenate hydrate related to kipushite, from Montana; ibid., p. 255-258, 1985.

Freedite and thorikosite from Langban, Sweden and Laurion, Greece: two new species related to the synthetic bismuth oxyhalides; Amer. Mineral., vol. 70, p. 845-848, 1985.

Tiptopite (Li,K,Na,Ca,)$_9$BE$_6$(PO$_4$)$_6$(OH)$_4$, a new mineral species from the Black Hills, South Dakota; Can. Mineral., vol. 23, p. 43-46, 1985.

Canaphite, a new sodium calcium phosphate hydrate from the Paterson area, New Jersey; Mineral. Record, vol. 16, p. 467-468, 1985.

Shigaite, a new manganese aluminum sulfate mineral from the Ioi mine, Shiga, Japan; Neues Jahrbuch für Mineralogie, Mh., Bd. 10, p. 453-457, 1985.

Thermogravimetric analysis evolved gas analysis has been used to provide data on the volatile components of 7 new minerals. TGA and DTA in vacuum, or at atmosphere with specific furnace atmospheres have been carried out on a variety of minerals. The characteristics of the release of argon from tephra during heating were also determined.

INVERTEBRATE/INVERTÉBRÉS

809. BAMBER, E.W., Geol. Surv. Can.:
Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada, 1971-.

See:

Microfacies of the Lower Carboniferous Banff Formation and Rundle Group, Monkman Pass map area, northeastern British Columbia; Geol. Surv. Can., Bull. 353, 1986.

New Carboniferous and Permian Tethyan and Boreal corals from northwestern British Columbia, Canada; J. Paleontol., vol. 59, no. 6, p. 1489-1504, 1985.

Coral zonation of the Mississippian System in the western Interior Province of North America; U.S. Geol. Surv., Prof. Paper 1334, 1985.

810. BAMBER, E.W., Geol. Surv. Can.:
Micropaleontology, palynology and macropaleontology of the surface and subsurface Paleozoic of the northern Yukon and western District of Mackenzie, 1985-.

811. BARNES, C.R., Memorial Univ. (Earth Sciences):
Conodont biostratigraphy of the Upper Ordovician-Lower Silurian of Anticosti Island, Quebec, 1975-.

812. BARNES, C.R., POHLER, S.L., JOHNSTON, D.I., KENNA, K, JI, X., Memorial Univ. (Earth Sciences):
Cambro-Ordovician slope and platform sequences, western Newfoundland, 1981-; Ph.D. theses (Pohler, Ji), M.Sc. theses (Johnston, Kenna).

See:

Early Ordovician (Arenig) conodonts from St. Paul's Inlet and Marin Point, Cow Head Group, western Newfoundland, Canada; in: Aldridge, R.J., Austin, R.L. and Smith, M.P. (Eds.), Fourth European Conodont Symp. (ECOS IV), Abstracts, p. 15, 1985.

Ordovician conodont biofacies and continental margin lithofacies, Cow Head Group, western Newfoundland; ibid., p. 24, 25, 1985.

Reconstruction of a lost faunal realm; conodonts from breccia-beds of the Lower Ordovician Cow Head Group, western Newfoundland; Can. Pal. Biostrat. Seminar, Programme with Abstracts, 1985.

813. BOLTON, T.E., Geol. Surv. Can.:
Ordovician-Silurian biostratigraphy, Southampton Island, District of Keewatin, 1970-.

814. BOYCE, W.D., Newfoundland Dept. Mines and Energy:
Paleontological support, 1985-89.

See:

Ordovician biostratigraphic investigations, Great Northern Peninsula, western Newfoundland; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Biostratigraphic and paleoenvironmental significance of paleoniseid fish and vascular plant remains for the Snakes Bight Formation (Anguille Group), Codroy area, southwestern Newfoundland; ibid.

Detailed biostratigraphic sampling of Cambrian and Ordovician rocks in western Newfoundland for trilobites and conodonts. Provide assistance to government, university and industry geologists in critical areas of the province – collection identification and correlation of fossils in order to resolve stratigraphic/structural problems.

815. BRAUN, W.K., Univ. Saskatchewan (Geological Sciences):
Devonian ostracode faunas and biostratigraphy of western Canada, 1976-89.

About 650 species of ostracodes compromise 9 Middle and 6 Frasnian biozones which can be traced across western Canada. The biozones are divided into two parts, allowing a high level of refinement and accuracy in correlations. The faunas are one of the richest in the world. A number of biostratigraphic papers will be published shortly, and the monographic-systematic treatment of the faunas continues.

816. BRAUN, W.K., BROOKE, M.M., Univ. Saskatchewan (Geological Sciences):
Jurrasic Ostracoda of western Canada and adjacent United States, 1972-87.

The long-term project is nearly completed and results are presently compiled in a monograph. Ninety-five (95) species of ostracodes are evaluated taxonomically, belonging to 13 biozones of Bajocian to late Portlandian-Volgian age. The area of study extends, in surface, from the Arctic Coast to southern Montana, and in subsurface throughout southern Sakatchewan and adjoining regions.

817. BRIGGS, D., COLLINS, D.H., Univ. Bristol (Geology), Royal Ontario Mus. (Invert. Pal.):
A new Middle Cambrian arthropod from Mount Stephen, British Columbia, with chelecerate affinites, 1983-.

818. CAMERON, B.E.B., Geol. Surv. Can.:
Foraminiferal biostratigraphy of the Pacific Margin, 1969-.

See:

Jurassic stratigraphy of the Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Bull. 365, 1985.

819. COLLINS, D.H., WARD, P.D., Royal Ontario Mus. (Invert. Pal.), Univ. Washington (Geologial Sciences):
Adolescent growth and maturity in *Nautilus*, 1978-.

820. COPELAND, M.J., Geol. Surv. Can.:
Paleozoic ostracodes of Canada, 1972-.

See:

New occurrences of **Kolmodinia** Martinsson (Ostracoda) from the Silurian (Wenlock) of the Mackenzie Mountains, Northwest Territories; Geol. Surv. Can., Paper 85-1B, p. 277-280, 1985.

Dioxycaris fritzi sp. nov. (Arthropoda, Phyllocarida) from the Pika Formation (Middle Cambrian, **Bolaspidella** Zone), Jasper National Park, Alberta; Geol. Surv. Can., Paper 86-1A, p. 663-666, 1986.

Fossils of Ontario Part 3: The Eurypterids and Phyllocarids; Royal Ont. Mus. Life Sci. Misc. Publ., 1985.

821. COPPER, P., MIELCZAREK, W., HARRIS, D., JISUO, J., EWING, K., BRUNTON, F., HAMILTON, S., Laurentian Univ. (Geology):
Evolution of reef ecosystems in the Paleozoic. Functional morphology, ecology and evolution of spire-bearing brachiopods. Paleobiology of brachiopods; M.Sc. theses (Mielczarek, Harris, Ewing, Brunton, Hamilton), PH.D. thesis (Jisuo).

See:

Devonian atrypoid brachiopods from the Massif Armoricain; Palaeontographica, vol. 187, p. 58-104, 1985.

Fossilized polyps in 430-Myr-old **Favosites** corals, Nature, vol. 316, p. 142-144, 1985.

822. COSSETTE, D., LESPÉRANCE, P.J., Université de Montréal (Géologie):
Ontogénie, variations intraspécifiques-interspécifiques et évolution de quelques genres de Trinucleidae (Trilobita) de l'Ordovicien Moyen et Supérieur, 1982-86; thèse de maîtrise (Cossette).

Résumé: Plusieurs espèces nouvelles sont décrites. Résultats intéressants sur l'ontogénie aidant à la compréhension du groupe et impliquant de nouvelles méthodes de comptage. Résultats évolutifs à long terme et implications "stratigraphiques" grâce à cette nouvelle optique. But: Deux articles à écrire: 1) ontogénie, 2) modèle évolutif proposé. Av. travaux: rédaction de thèse.

823. DI VERGILIO, M., LESPÉRANCE, P.J., Université de Montréal (Géologie):
Les Trilobites du Trenton (Ordovicien moyen) des Basses-Terres du Saint-Laurent, 1981-86; thèse de maîtrise (Di Vergilio).

Revision systématique des espèces de Trilobites des principales coupes du Trenton retrouvées dans les Basses-Terres du Saint-Laurent. Etablir l'importance stratigraphique de chaque espèce et décrire les espèces nouvelles. Je suis présentement engagé dans la phase de rédaction finale (celle-ci a été interrompu pendant 2 ans).

824. DIXON, O.A., Univ. Ottawa (Geology):
Ordovician and Silurian heliolitid corals of Anticosti Island, Quebec, and Canadian Arctic, 1968-.

See:

The heliolitid coral **Acidolites** in Ordovician-Silurian rocks of Eastern Canada; J. Paleontol., vol. 60, no. 1, p. 26-52, 1986.

825. FERGUSON, L., Mount Allison Univ. (Geology):
Carboniferous productid brachiopods; spinosity, ontogeny, paleoecology and taxonomic implications, 1960-86.

See:

Development of successive sets of halteroid spines in **Eomarginifera longispina** (Sowerby) (in response to changing position of the shells during ontogeny) and its taxonomic implications; Proc. First Internat. Congr. on Brachiopoda, "Biostratigraphie du Paleozoique", Brest, France, 1986.

826. FERGUSON, L., Mount Allison Univ. (Geology):
Carboniferous brachiopod paleoecology, 1985-86.

See:

Size diminution in vertically inclined fossil lingulid shells as an indicator of proximity of conditions near the end of their tolerance range; Proc. First Internat. Congr. on Brachiopoda, "Biostratigraphie du Paleozoique", Brest, France, 1986.

827. HALL, R.L., Univ. Calgary (Geology and Geophysics):
Taxonomy, biostratigraphy and biogeography of Middle Jurassic Ammonites, western Canada, 1985-.

Fieldwork was begun in 1985 to re-collect Middle Jurassic (particularly Bajocian) ammonite faunas from localities on the Queen Charlotte Islands and this year will continue at mainland British Columbia localities.

828. HALL, R.L., STRONACH, N., Univ. Calgary (Geology and Geophysics):
Lithostratigraphy and biostratigraphy of the Fernie Formation, Canadian Rocky Mountains, 1978-86.

See:

Paraplesioteuthis hastata (Münster), the first teuthid squid recorded from the Jurassic of North America; J. Paleontol., vol. 59, no. 4, p. 870-874, 1985.

Taxonomic and biostratigraphic details of Toarcian ammonite/belemnite faunas and Bathonian ammonite faunas remain to be published this year.

829. HEWITT, R.A., WESTERMANN, G.E.G., McMaster Univ. (Geology):
Late Ordovician-Silurian nautiloids and associated biota; Great Lakes region and elsewhere, 1983-.

See:

Post-mortem descent with septal implosion in Silurian nautiloids; Paleontographica, vol. 2, no. 59, p. 79-97, 1985.

Phosphatic connecting rings and ecology of an Ordovician ellesmereocerid nautiloid; Alcheringa, vol. 9, p. 229-243, 1985.

Depth of reef versus non-reef habitats, stratigraphic origin of type material, etc.

830. HIGGINS, A.C., Geol. Surv. Can.:
Carboniferous and Permian biostratigraphy and conodont faunas, western and northern Canada, 1983-.

831. HOFMANN, H.J., Université de Montréal (Géologie):
Precambrian and Lower Paleozoic paleontology and stratigraphy.

See:

The Mid-Proterozoic Little Dal macrobiota, Mackenzie Mountains, north-west Canada; Palaeontology, vol. 28, pt. 2, p. 331-354, 1985.

Precambrian carbonaceous megafossils; in Paleoalgology: Contemporary research and applications, Springer, p. 20-33, 1985.

Ediacaran fossils from the Miette Group, Rocky Mountains, British Columbia, Canada; Geology, vol. 13, no. 11, p. 819-821.

832. HOSSLEY, J., CAMERON, B., JONES, J.R., Acadia University (Geology):
Use of salt marsh Foraminifera in developing a model for the evolution of a Barrier Island: Plum Island, Mass., USA, 1983-87; M.Sc. thesis (Hossley).

The origin of the Plum Island barrier complex of Massachusetts is being investigated through the analysis of subsurface foraminiferal assemblages and sediments taken from the associated back-barrier salt marsh peats. The salt marsh initially developed at least 3,560 years BP in a manner similar to a modified Mudge hypothesis for marsh development. The upper marsh sequence appears to approach the model suggested by Shaler. However, the overall marsh development resembles a modified Chapman-Redfield model because sea level appears to have risen relatively rapidly at first and then more slowly towards recent times. A marsh cross-section shows high marsh peats at the bottom, top and next to the island. Low marsh peats form a layer in the middle and "lenses" where former tidal channels drained high marsh areas. This model combined with C-14 dates suggests that Plum Island has grown and migrated southward by spit accretion and landward by overwash processes. Cuspate beaches and/or spits may have formed between drumlins at the downdrift end of the island prior to the arrival of the terminus of the accreting Plum Island spit.

833. KARROW, P.F., BAJC, A.F., Univ. Waterloo (Earth Sciences):
Glaciolacustrine history and molluscan assemblages, Marathon, Ontario, 1983-; M.Sc. thesis (Bajc).

Terraces dated 8000-2000 B.P. are commonly fossiliferous. Molluscs from 35 sites are being compared to detect biostratigraphic changes and make paleoecologic interpretations.

834. KARROW, P.F., KERR-LAWSON, L.J., Univ. Waterloo (Earth Sciences):
Paleontology of the Toronto interglacial, 1960-; M.Sc. thesis (Kerr-Lawson).

Study of plant macrofossils and molluscs from the Don Formation at the Don Brickyard is nearly completed.

835. KENNEDY, D.J., Brock Univ. (Geological Sciences):
Cambro-Ordovician conodonts of North America and Australia.

836. KUKALOVA-PECK, J., Carleton Univ. (Geology):
Evolutionary morphology of Paleozoic insects with reference to Recent insects, 1975-99.

See:

Ephemeroid wing venation based upon new gigantic Carboniferous mayflies and basic morphology, phylogeny, and metamorphic of pterygote insects (Insecta, Ephemerida); Can. J. Zoology, vol. 63, no. 4, p. 933-955, 1985.

Most basic morphological problems of Recent insects can be solved or channeled and helped, by fossils. The aim is to deliver morphological interpretations of organs, such as insect wings, mouthparts, body wall, abdominal appendages, etc. based upon early evolutionary states of characters found in Carboniferous insects. Fossil record provides proof and base for phylogenetic considerations. I will eventually deliver ground-plans of all body organs of all extinct and extant insect orders, such as from which structure and how evolved insect wing, origin of insect pupa, etc.

837. LAPOINTE, M., MAMET, B., Université de Montréal (Géologie):
Algues ordoviciennes et siluriennes de l'Ile d'Anticosti, Québec, 1985-86; thèse de maîtrise (Lapointe).

Description des Algues vertes et rouges des formations Vauréal, Ellis Bay, Becscie, Gun River et Jupiter.

838. LESPÉRANCE, P.J., Université de Montréal (Géologie):
Trilobites de l'Ashgillien de Belgique (Ordovicien Supérieur), 1974-86.

839. LESPÉRANCE, P.J., Université de Montréal (Géologie):
Rainures vinculaires chez quelques Trilobites Phacopidae du Silurien et Dévonien, 1981-86.

Surtout les genres **Acernaspis** et **Phacops**.

840. LESPÉRANCE, P.J., DESBIENS, S., Université de Montréal (Géologie):
Stratigraphie de l'Ordovicien au Saguenay Lac St-Jean basée sur les Trilobites, 1985-87; thèse de maîtrise (Desbiens).

Le présent projet a pour buts la description des différentes Formations Ordoviciennes du Saguenay Lac St-Jean et d'établir des corrélations biostratigraphiques à partir des Trilobites présents dans celles-ci.

841. LESPÉRANCE, P.J., SHEEHAN, P.M., Université de Montréal (Géologie); Milwaukee Public Mus.:
Paléoécologie des Calcaires Supérieurs de Gaspé, Nord-Est de la Gaspésie (Dévonien Inférieur), 1973-87.

842. LUDVIGSEN, R., Univ. Toronto (Geology):
Taxonomy of Middle Cambrian trilobites from the Avalon Peninsula, eastern Newfoundland, 1983-.

The trilobites **Clarella, Anopolenus, Solenopleuropsis, Onymagnostus** from the **Hydrocephalus hicksi** and **Paradoxides davidis** zones of the Manuels River Formation are being revised.

843. LUDVIGSEN, R., Univ. Toronto (Geology):
Reef trilobites from the Formosa Limestone (Lower Devonian) of southern Ontario, 1984-86.

Trilobite faunas of the Formosa Reef are dominated by **Crassiproetus** and a new warburgelline genus. **Mystrocephala, Acanthopyge**, and **Harpidella** also occur.

844. LUDVIGSEN, R., CHATTERTON, B.D.E., Univ. Toronto (Geology), Univ. Alberta (Geology):
Ordovician trilobites from the Road River Formation in western District of Mackenzie and northern Yukon Territory, 1983-86.

Middle and Upper Ordovician trilobite faunas of the off-platform Road River Formation are dominated by nileids, raphiophorids, asaphids, remopleuridids, trinucleids, calymenids that are rare or absent from coeval faunas of the adjacent platform.

845. LUDVIGSEN, R., TRIPP, R.P., Univ. Toronto (Geology):
Lower Silurian trilobites of northern Yukon Territory, 1983-86.

Lower Silurian trilobites of the Road River Formation at Prongs Creek include **Otarion, Kosovopeltis, Cromus**, and **Leonaspis**. Those from an unnamed formation in the Illtyd Range include **Stenopareia, Scotoharpes, Cheirurus, Dicranopeltis**, and **Decoroproetus**.

846. LUDVIGSEN, R., WESTROP, S.R., Univ. Toronto (Geology):
Upper Cambrian trilobite biostratigraphy of the Cow Head Group, western Newfoundland, 1982-.

Diverse trilobite assemblages from 300 limestone boulders of the C.H. Kindle Collection at the Geological Survey of Canada are assigned to six Marjuman faunas, three Steptoean faunas, and five Sunwaptan faunas.

847. LUDVIGSEN, R., WESTROP, S.R., Univ. Toronto (Geology):
Upper Cambrian trilobite biostratigraphy of New York State, 1982-.

Marjuman, Steptoean, and Sunwaptan trilobites of the Potsdam, Galway, Ticonderoga, and Hoyt from collections in the N.Y. State Museum and U.S. National Museum are being investigated.

848. LUDVIGSEN, R., WESTROP, S.R., Univ. Toronto (Geology):
Taxonomy of Sunwaptan (Upper Cambrian) trilobites of North America, 1984-.

See:

Revision of **Acheilus** and **Theodenisia**; J. Paleontol., vol. 60, p. 61-67, 1986.

Type species of the basal Ibexian trilobite *Corbinia* Walcott; J. Paleontol., vol. 60, p. 68-75, 1986.

Revision of **Acheilus, Theodenisia, Corbinia, Idiomesus**, and **Macronoda, Zacompsus**. **Elkia, Parabriscoia, Briscoia** are in progress.

849. MARSHALL, M., WESTERMANN, G.E.G., SANDOVAL, J., McMaster Univ. (Geology); Univ. Granada, Spain:
The Bathonian-Callovien (Jurassic) ammonite biostratigraphy of Cualac, Guerr., Mexico, 1984-86; M.Sc. thesis (Marshall).

The biostratigraphy and ammonite taxonomy of this important 600 m section is supplemented by facies analysis for the reconstruction of sedimentary environment history.

850. MATTHEWS, J.V., Jr., Geol. Surv. Can.:
Late Cenozoic fossil insects and Late Cenozoic paleoecology, 1973-.

851. MCNEIL, D.H., Geol. Surv. Can.:
Mesozoic and Cenozoic Foraminifera of the Arctic western mainland of Canada, 1978-.

852. MCNEIL, D.H., Geol. Surv. Can.:
Macropaleontology, micropaleontology and palynology of the Mesozoic and Lower Tertiary of the northern Yukon and western District of Mackenzie, 1985-.

853. MUNRO, I., DIXON, O.A., NOWLAN, G.S., Univ. Ottawa (Geology):
Conodont biostratigraphy of Lower Ordovician rocks in the Ottawa-Brockville-Montreal region, 1983-87; Ph.D. thesis (Munro).

854. NAUSS, A., SMITH, P.L., Univ. British Columbia (Geological Sciences):

Paleoecology and taxonomic affinities of the aberrant pelecypod **Lithiotis** (Lower Jurassic Robertson Formation, Oregon), 1983-86; M.Sc. thesis (Nauss).

To study the taxonomic affinities and paleoecology of the aberrant bivalve **Lithiotis** which forms large bioherms in the lower Jurassic Robertson Formation of eastern Oregon. Also of interest are the paleobiogeographic implications of the worldwide distribution of **Lithiotis**.

855. NOBLE, J.P.A., POPE, C., LEE, D.J., TANSATHIEN, W., YOUNG, G., Univ. New Brunswick (Geology):
Mid-Paleozoic faunal history and tectono-sedimentary evolution of basins in the Northern Appalachians, 1980-92; M.Sc. theses (Pope, Lee, Tansathien), Ph.D. thesis (Young).

See:

Occurrence and significance of Late Silurian reefs in New Brunswick, Canada; Can. J. Earth Sci., vol. 22, p. 1518-1529, 1985.

856. NORRIS, A.W., Geol. Surv. Can.:
Brachiopods of the lower Upper Devonian Waterways Formation of northeastern Alerta, 1977-.

857. NOWLAN, G.S., Geol. Surv. Can.:
Paleozoic conodonts of eastern Canada, 1977-.

See:

Small shelly fossils and trace fossils near the Precambrian-Cambrian boundary in the Yukon Territroy, Canada; Lethaia, vol. 18, p. 233-256, 1985.

858. ORCHARD, M.J., Geol. Surv. Can.:
Conodont biostratigraphy and biogeography in the Canadian Cordillera, 1981-.

See:

Fossil ages and isotopic dates from the Paleozoic Sicker Group and associated intrusive rocks, Vancovuer Island, British Columbia; Geol. Surv. Can., Paper 86-1A, p. 683-696, 1986.

Upper Paleozoic to lower Mesozoic strata and their conodonts, western Coast Plutonic Complex, British Columbia; Can. J. Earth Sci., vol. 22, no. 9, p. 1329-1344, 1985.

Early Silurian age of rocks hosting lead-zinc mineralization at Howards Pass, Yukon Territory and District of Mackenzie; local biostratigraphy of Road River Formation and Earn Group; Geol. Surv. Can., Paper 83-18, 1985.

Late Paleozoic conodonts from ribbon chert delineate imbricate thrusts within the Antler Formation of the Slide Mountain terrane, central British Columbia; Geology, vol. 13, no. 11, p. 794-798, 1985.

859. PARKINS, W.G., DIXON, O.A., Univ. Ottawa (Geology):
Late Silurian rugose corals of Somerset and Cornwallis Islands, Arctic Canada, 1977-; Ph.D. thesis (Parkins).

See:

The coral **Thuliocyclus prominens** n. gen. and sp. (Rugosa:Palaeocyclidae) from the Upper Silurian of the Canadian Arctic Archipelago; J. Paleontol., vol. 60, no. 1, p. 53-60, 1986.

860. PINARD, S., MAMET, B., Université de Montréal (Géologie):
Foraminifères des Formations Nansen, Otto Fiord, Belcher Channel, Bassin de Sverdrup (Ellesmere, Axel Heiberg), 1984-87; thèse de doctorat (Pinard).

Taxonomie des Petits Foraminifères du Carbonifère et du Permien Inférieur.

861. PRATT, B.R., LUDVIGSEN, R., Univ. Toronto (Geology):
Trilobite biostratigraphy and sedimentology of Upper Cambrian formations, western District of Mackenzie, 1983-; Ph.D. thesis (Pratt).

862. RUDKIN, D.M., Royal Ontario Mus. (Invert. Paleontology):
Systematics, biostratigraphy and palaeoecology of **Glossopleura** Zone trilobites, Stephen Formation, Middle Cambrian, British Columbia, 1982-.

Preparation of systematic descriptions continues.

863. RUDKIN, D.M., Royal Ontario Mus. (Invert. Paleontology):
Additional appendage-bearing trilobites from the Middle Cambrian Stephen Formation, British Columbia, 1984-.

Of the four species of appendage-bearing trilobites from the Burgess shale described by Walcott, two have been redescribed in detail by Whittington, one proves not to be a trilobite, and the fourth is confirmed. Specimens of **Glossopleura** with preserved appendages are described from an apparently lower horizon in the Stephen Formation.

864. RUDKIN, D.M., Royal Ontario Mus. (Invertebrate Paleontology):
The Ordovician trilobite **Ceraurus** in Ontario, 1986-.

Systematic and biostratigraphic assessment of described and undescribed species of **Ceraurus**.

865. SMITH, P.L., Univ. British Columbia (Geological Sciences):
Lower Jurassic paleobiogeography.

866. SMITH, P.L., Univ. British Columbia (Geological Sciences):
Computer applications in paleontology, 1982-.

See:

The implications of data base management systems to paleontology; J. Paleontol., vol. 60, p. 327-40, 1986.

867. SMITH, P.L., CAMERON, B.E.B., CARTER, E., TIPPER, H.W., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Early and Middle Jurassic radiolarian biostratigraphy, Queen Charlotte Islands, British Columbia, 1985-; M.Sc. thesis (Carter).

868. SMITH, P.L., TIPPER, H.W., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Lower Jurassic ammonites of the Queen Charlotte Islands, British Columbia.

869. THOMSON, R., SMITH, P.L., TIPPER, H.W., Univ. British Columbia (Geological Sciences, Geol. Surv. Can.:
Lower to Middle Jurassic (Pliensbachian to Bajocian) stratigraphy and Pliensbachian ammonite fauna of the northern Spatsizi area, north-central British Columbia, 1985-; M.Sc. thesis (Thomson).

870. TOZER, E.T., Geol. Surv. Can.:
Canadian Triassic Ammonoidea and Bivalvia, 1967-.

871. TRIPP, R.P., RUDKIN, D.M., Royal Ontario Mus. (Invert. Palaeontology):
North American species of **Isotelus** Dekay (Trilobita), 1985-.

To evaluate the validity and relationships of published species of **Isotelus** in North America with description and illustration of significant taxa. Evaluation of type species **Isotelus gigas**, and closely related populations well underway.

872. TUFFNELL, P.A., LUDVIGSEN, R., Univ. Toronto (Geology):
Triarthrus biostratigrphy of the Whitby Formation (Upper Ordovician) of southern Ontario, 1983-86; M.Sc. thesis (Tuffnell).

873. UYENO, T.T., Geol. Surv. Can.:
Conodont biostratigraphy of Siluro-Devonian rocks of the Arctic Island, 1968-.

874. VILKS, G., Geol. Surv. Can.:
Quaternary biostratigraphic methods for marine sediments, 1983-.

875. VON BITTER, P.H., HIGGINS, A.C., Royal Ontario Mus. (Invert. Palaeontology); Geol. Surv. Can.:
Conodont biostratigraphy and palaeoecology, Pennsylvanian and Permian, Arctic Islands, Canada, 1982-.

876. VON BITTER, P.H., MERRILL, G.K., Royal Ontario Mus. (Invert. Palaeontology), Univ. Houston:
Pennsylvanian conodonts of North America – their taxonomy, palaeoecology and biostratigraphy, 1968-.

877. VON BITTER, P.H., PLINT-GEBERL, H., DHINDSA, R., WESTON, D., DUDAR, C., Royal Ontario Mus. (Invert. Palaeontology):
Palaeoecology and biostratigraphy of Lower Carboniferous (Windsor and Codroy groups) conodonts, Atlantic Provinces, Canada, 1971-; M.Sc. theses (Plint-Geberl, Dhindsa).

878. VON BITTER, P.H., SANDBERG, C., ORCHARD, M.J., Royal Ontario Mus. (Invert. Palaeontology), U.S.G.S., Geol. Surv. Can.:
Mestognathus (Conodontophorida), its phylogeny, ontogeny and palaeoecology, 1985-.

See:

Palaeoceology, geographic distribution and zonation of the Early Carboniferous (Mississippian) conodont genus **Mestognathus**; Fourth European Conodont Symp.- ECOS IV, Nottingham, 1985.

879. WAKHUNGU, J., CAMERON, B., Acadia University (Geology):
The micropaleontology and paleo-environments beneath the Jurassic-Cretaceous boundary at Cape Espichel, Portugal, 1985-87; M.Sc. thesis (Wakhungu).

Foraminifera and Ostracoda are being studied from marls, limestones, and sandstones from the Portlandian section at Cape Espichel, Portugal. The microfauna in all samples exhibit a relatively low overall diversity, ranging from a total of 4 to 15 species per sample. Both the ostracodes and Foraminifera exhibit large diversity fluctuations, with the latter showing lower diversity values in the successively younger samples. Both agglutinated and calacareous Foraminifera from an important part of the benthic microfauna. The ostracode genera show a slight increase in euryhaline forms towards the top of the section while there is a simultaneous decrease in stenohaline genera. The lithologies and microfauna indicate that, during the Late Jurassic, Cape Espichel experienced a marginal marine environment with shallow water depths of up to 50 m.

880. WALL, J.H., Geol. Surv. Can.:
Reconnaissance of Mesozoic Foraminifera of Arctic Island, 1972-.

881. WANG, Y., SMITH, P.L., Nanjing Instit., China, Univ. British Columbia (Geological Sciences):
Sinemurian ammonites and stratigraphy, southern China, 1984-86.

882. WARNER, B.G., Univ. Waterloo (Earth Sciences):
Modern surface spectra of testate amoebae from peatlands in Ontario, 1985.

883. WESTERMANN, G.E.G., CALLOMON, J., McMaster Univ. (Geology), Univ. London:
The Macrocephalitidae assemblages of Indonesia and New Guinea, 1977-86.

Based on 1977 expedition of Westermann, the first stratigraphically collected Middle Jurassic ammonites of this most important western Pacific ammonite region permit regional zonation, taxonomic revision and phylogenetic-biogeographic analysis of an important family.

884. WESTERMANN, G.E.G., HEWITT, R.A., McMaster Univ. (Geology):
Shell functional morphology in **Nautilus** and related fossils, 1981-.

See:

Numerical aspects of sutural ontogeny in the Ammonitina and Lytoceratina; N.Jb. Geol. Palaeont., Abh. 170, p. 273-290, 1985.

Function of complexly fluted septa in ammonoid shells. I. mechanical principles and functional models; N.Jb. Geol. Palaeont., Abh. 170, 1986.

885. WESTERMANN, G.E.G., RICCARDI, A.C., ELMI, S., McMaster Univ. (Geology), LaPlata Mus., Argentina, Univ. Lyons, France:
The Middle Jurassic ammonite faunas of the Argentine-Chilean Andes. III, Macrocephalitidae etc. and the Chacay Melehue section.

Monographic description and biostratigraphic-biogeographic analysis of the ammonite faunas.

VERTEBRATE/VERTÉBRÉS

886. CARROLL, R.L., McGill Univ. (Redpath Mus.):
Analysis of factors governing the major patterns of evolution, 1984-.

Analysis of patterns of evolutionary changes among Mesozoic aquatic reptiles and Paleozoic amphibians provide the basis for judging the relative significance of different developmental patterns, environmental factors and limitation of ancestral skeletal patterns.

887. CARROLL, R.L., LINDSAY, W., McGill Univ. (Redpath Mus.), British Mus (Nat. Hist.):
Cranial anatomy and evolutionary positon of the primitive reptile **Procolophon**, 1983-85.

See:

Cranial anatomy of the primitive reptile **Procolophon**; Can. J. Earth Sci., vol. 22, p. 1571-1587, 1985.

888. CARROLL, R.L., SUES, H.-D., GASKILL, P., GODFREY, S.J., McGill Univ. (Redpath Mus.):
Nothosaurs and the origin of plesiosaurs, 1980-.

See:

The nothosaur **Pachypleurosaurus** and the origin of plesiosaurs; Phil. Trans. Royal Soc., London, B., vol. 309, p. 343-393, 1985.

The pachypleurid **Dactylosaurus schroederi** (Diapsida: sauropterygia); Can. J. Earth Sci., vol. 22, p. 1602-1608, 1985.

Establishment of the skeletal anatomy of nothosaurs as a guide to their relationships and probable mode of locomotion.

889. DINELEY, D.L., LOEFFLER, E.J., Univ. Bristol, U.K. (Geology):
Early vertebrates from the Late Silurian/Early Devonian of Somerset and Prince of Wales Island, Northwest Territories, Canada, 1964-.

See:

Palaeozoic fishing; Proc. Royal Instit., vol. 57, p. 123-141, 1985.

A new Heterostracan from the Upper Silurian of Northwest Territories; J. Vertebrate Paleontol., vol. 5, p. 103-110, 1985.

Work continues on the existing collections of early vertebrate material, with effort concentrated on the description of the many new cyathaspidids and traquairaspidids (Heterostraci).

890. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
A review of the genus **Eremotherium** (Edentata, Mammalia), 1958-87.

Work continues on the metric and morphological comparisons of the giant ground sloth **Megatherium americanum** and the three currently recognised species of **Eremotherium**. The common Pleistocene species, **E. laurillardi** exhibits considerable size variation throughout its range (Brasil and Peru to New Jersey, USA) and this is being compared with that of **M. americanum**. A data-gathering trip to South American institutions is planned to seek data on the ancestry of the group. A summary of this was presented to the Society of Vertebrate Paleontology in Rapid City, S.D. in November 1985.

891. EDMUND, G., Royal Ontario Mus (Vert. Palaeontology):
Tertiary and Quaternary radiation of the giant armadillos (Pampatheriidae: Mammalia) in South American, 1964-86.

892. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
Osteology and functional morphology of the Pleistocene giant armadillo **Holmesina septentrionalis** (Pampatheriidae, Xenarthra, Mammalia), 1965-87.

See:

The giant armadillos of the Pleistocene of North America; in The Evolution and Ecology of the Xenarthra, G. Montgomery ed., Smithsonian Instit. Press, Washington, DC, 1985.

Dissection of preserved Recent armadillos has aided in the interpretation of skull structures in fossil **Holmesina**. Illustrations of muscles and other structures of the head and neck of **Dasypus** were begun in 1985 and should be ready for submission in 1986. Work on the structure of the giant form **Holmesina** continues with completion expected in 1987.

893. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
Evolution of a single phyletic line of giant armadillos (Pampatheriidae, Mammalia) in Florida during the Pleistocene, 1975-85.

This project is completed, with a manuscript accepted by the University of Texas at Austin.

894. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
The Daytona Beach bonebed, a (?)Sangamonian deposit from Volusia County, Florida, 1975-87.

Contributions from two collaborators are in hand, and the remainder are expected in 1986. Identification of the small vertebrates by Kevin Seymour, Royal Ontario Mus., increased the variety of the fauna and reinforces the botanical conclusion of the proximity to fresh water. Assuming prompt submissions from collaborators, the manuscript should be submitted in 1987.

895. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
The body armour of giant armadillos (Pampatheriidae, Xenarthra, Mammalia), 1980-84.

Project completed and published October, 1985.

896. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
A well-preserved giant armadillo (Pampatheriidae, Mammalia) from the Miocene of Argentina, 1985-87.

A fine skull and mandible, along with other skeletal elements were collected many years ago in Catamarca province, Argentina. It is tentatively referred to **Vassallia maxima** Castellanos, a taxon not founded on adequate material. Because it represents an early well-dated member of the Pampatherium lineage, and has associated skull, skeleton and osteoderm elements, its description will be important in typifying this major armadillo group. Completion of the manuscript is targetted for 1987.

897. EDMUND, G., Royal Ontario Mus. (Vert. Palaeontology):
The giant armadillo (Pampatheriidae, Mammalia) from La Venta, Miocene of Colombia, 1985-87.

Originally, and incorrectly identified by others as **Kraglievichia**, this early pampathere is now known from more complete material which has been prepared by acid dissolution. It represents a new taxon and will be described, along with speculations on its relationships. Completion of manuscript is expected in 1987.

898. EDMUND, G., MCANDREWS, J.W., Royal Ontario Mus. (Vert. Palaeontology):
Quaternary paleoecology of a sinkhole and watercourses in Sarasota County, Florida, 1984-86.

Excavations and study of air photos indicte a (?) Holocene redeposition of vertebrate remains near the shoreline, encouraging a future study of the taphonomy. Further material was obtained as a result of collecting by others, but work is suspended pending collaboration of an archeologist.

899. EDMUND, G., MCDONALD, G., Royal Ontario Mus. (Vert. Palaeontology):
A description of scelidodon from the Pleistocene tar seeps of Ecuador and Peru, and review of the scelidotheres (Mylodontidae, Mammalia), 1978-86; Ph.D. thesis (McDonald).

900. EDMUND, G., SEYMOUR, K., Royal Ontario Mus. (Vert. Palaeontology):
A vertebrate fauna of Holocene Age from Lake Flirt deposits of Sarasota County, Florida, 1984-1988.

Picking of bones from screen-washed concentrate has added thousands of elements requiring identification. Snakes, aquatic salamanders and small mammals are the most common along with fresh water fish and birds.

901. GODFREY, S.J., McGill Univ. (Redpath Mus.):
The skeletal anatomy of **Greererpeton burkemorani** Romer 1969, an upper Mississippian temnospondyl amphibian, 1981-; Ph.D. thesis.

The exquisite preservation of several virtually complete skeletons of this, the oldest known North American temnospondyl amphibian, has provided a basis on which to establish the polarity of character states; a prerequsite to resolving the interrelationships of the earliest tetrapods.

902. GODFREY, S.J., FIORILLO, A., CARROLL, R.L., McGill Univ. (Redpath Mus.):
The temnospndyl amphibian **Dendrerpeton acadianum** Owen, 1982-.

An unusually well-preserved, three-dimensional skull of **Dendrerpeton** from the famous locality at Joggins, Nova Scotia provides new information on the structure of the palate and lower mandible, and insights into the evolution of an impedance matching ear.

903. HARINGTON, C.R., YOUNGMAN, P.M., FITZGERALD, G.R., National Museum Nat. Sci. (Paleobiology):
Quaternary vertebrates of Canada, 1965-.

See:

Comments on Canadian Pleistocene mammals; Acta Zoologica Fennica, vol. 170, p. 193-197, 1985.

Climatic change in Canada 5, critical periods in the Quaternary climatic history of northern North America; Syllogenus 55, 1985.

C.R. Harington is working on Yukon ice age vertebrates, the vertebrates of the Champlain Sea and climatic change in Canada during the Quaternary; P.M. Youngman is carrying out research on small carnivores from Quaternary deposits in

Eastern Beringia; G.R. Fitzgerald is continuing his work on ducks and geese from Quaternary deposits in the Old Crow Basin of the Yukon.

904. HOLMES, R., McGill Univ. (Redpath Mus.):
Anatomy and relationships of Paleozoic anthracosaurian amphibians, 1980-.

See:

The Carboniferous amphibian **Proterogyrinus scheelei** Romer, and the early evolution of tetrapods; Phil. Trans. Royal Soc., London, B, vol. 306, p. 431-527, 1985.

Work continuing on the braincase of the Permian embolomere **Archeria**, functional analysis of labyrinthodont vertebrae and description of Upper Mississippian embolomeres.

905. LIN, K., McGill Univ. (Redpath Mus.):
Osteology and ontogeny of the aquatic reptile **Keichowsaurus hui** (Sauropterygia) from Guizhon, China, 1985-88; Ph.D. thesis (Lin).

Description of the adult anatomy, analysis of growth from ontogenetic series, reconstruction of muscular anatomy and establishment of swimming pattern. Interpretation of relationships to other nothosaurs and between nothosaurs and terrestrial diapsids.

906. MOSSMAN, D.J., Mount Allison Univ. (Geology):
Vertebrate footprints from Mississippian and Pennsylvanian sediments in Nova Scotia – compilation and description of all known forms, 1974-90.

907. NEUMAN, A.G., WILSON, M.V.H., Univ. Alberta (Zoology):
Triassic marine fishes of western Canada 1984-86; M.Sc. thesis (Neuman).

908. RUSSELL, D.A., National Museum Nat. Sci. (Paleobiology):
Dinosaurs of North America, 1984-.

See:

A specimen of **Ornithomimus velox** (Theropoda, Ornithomimidae) from the terminal Cretaceous Kaiparowits Formation of southern Utah; J. Paleontol., vol. 59, p. 1091-1099, 1985.

Lone-bone circumference and weight in mammals, birds and dinosaurs; J. Zoology (London), vol. 207, p. 53-61, 1985.

D.A. Russell is preparing a book on dinosaurs of North America, and is involved in the Canada-China Project.

909. SCHULTZE, H.-P., ZODROW, E.L., Univ. College of Cape Breton (Geology), Mus. Natural History, Univ. Kansas:
Crossoptergyians from Sydney Coalfield, Nova Scotia, 1986-.

A potentially major development for Upper Carboniferous crossoptergyians in regards to evolution and biostratigraphy. A flattened skull was found which is a first for Canada. Developments are too new to be more specific at this time.

910. STORER, J.E., Saskatchewan Mus. Nat. Hist.:
Eocene-Oligocene mammals of the Cypress Hills Formation (Uintan-Chadronian) of Saskatchewan, 1979-.

Current work centres on two local faunas from the Lac Pelletier area. The earlier of these faunas appears to be latest Eocene (early- to mid-Duchesnean).

911. STORER, J.E., TOKARYK, T., Saskatchewan Mus. Nat. Hist.:
Late Cretaceous terrestrial vertebrates of Saskatchewan, 1984-.

1984-85 reconnaissance in the latest Cretaceous Frenchman Formation, Frenchman Valley south of Shaunavon, revealed an extremely rich fossil mammal locality and several other prospects. We have also begun working on the Judith River Formation near Unity, and are recovering a diverse fauna.

912. WALSH, D.M., McGill Univ. (Redpath Mus.):
The postcranial skeletal anatomy of **Barasaurus besairiei.** The most primitive known procolophonoid, from the Upper Permian of Madagascar, 1983-87; Ph.D. thesis.

Barasaurus besairiei possesses the definitive characteristics of procolophonoids, while appearing to link this group closely to the initial radiation of amniotes. **Barasaurus** will yield a more complete understanding of procolophonoid phylogeny, and the evolutionary pattern of the initial reptilian radiation.

913. WALSH, D.M., McGill Univ. (Redpath Mus.):
The cranial anatomy of caecilians: the problem of polarity, 1984-86.

The hypotheses of caecilian ancestry within the microsaurs and within the "Lissamphibians" are compared. The highly derived condition of caecilian cranial anatomy is suitable for a critical test of morphotype analysis methods. The functional morphology of the jaw shows a unique solution to the problems of miniaturization.

914. WELLSTEAD, C.F., McGill Univ. (Redpath Mus.):
Anatomy and relationships of the Lysorophia, 1977-85; Ph.D. thesis.

Description of the skeletal anatomy, determination of relationships and way of life of the elongate Paleozoic amphibians belonging the order Lysorophia.

915. WILSON, M.V.H., Univ. Alberta (Zoology):
Eocene fossil fishes of western North Ameria, 1975-.

916. WISLON, M.V.H., Univ. Alberta (Zoology):
Eocene lake environments and fish taphonomy, 1975-.

917. WILSON, M.V.H., Univ. Alberta (Zoology):
Paleoecene freshwater fishes of western Canada, 1978-.

918. WILSON, M.V.H., Univ. Alberta (Zoology):
Marine Mesozoic fishes of western Canada, 1983-.

See:

A fossil fish of the family Saurichthyidae from the Lower Jurassic of western Alberta, Canada; Can. J. Earth Sci., vol. 22, no. 8, p. 1158-1162, 1985.

919. WILSON, M.V.H., WIGHTON, D.C., Univ. Alberta (Zoology):
Fossil insects from the Paleocene of western Canada, 1975-.

PALEOBOTANY/PALYNOLOGY/ PALÉOBOTANIQUE ET ANALYSE POLLINIQUE

920. ACHAB, A., INRS: Géoressources:
Ordovician Chitinozoa from Quebec.

Two papers dealing with Lower and Middle chitinozoan faunas are in press.

921. ACHAB, A., JACOBSON, S.R., INRS-Géoressources:
Acritarch biostratigraphy of the Upper Ordovician of Quebec.

See:

Acritarch biostratigraphy of the **Dicellograptus complanatus** Zone from the Vaureal Formation (Ashgill), Anticosti Islands, Quebec, Canada; Palynology, vol. 9, p. 177-209, 1985.

Study of the **D. complanatus** Zone has been completed, while that of the **A. inuiti** Zone is in progress.

922. ASSELIN, E., ACHAB, A., BOURQUE, P.A., INRS-Géoressources:
Lower Silurian Chitinozoan biostratigraphy, Chaleurs-Bay synclinorium, Gaspé Peninsula, Québec, 1983-86.

Mise en évidence des assemblage de Chitinozoaires pour le Silurien inférieur du Synclinorium de la Baie des Chaleurs. Position stratigraphique de ces assemblages mise en relation avec les assemblages de Brachiopodes et de Conodontes. Comparison de nos associations avec celles décrites pour les séquences européennes, baltiques, sahariennes et nord-américaines. L'association retrouvée pour les Formations de l'Anse à Pierre-Loiselle et de la Vieille contient des formes reconnues au Telychien supérieur – Wenlock inférieur.

923. BARSS, M.S., Geol. Surv. Can.:
Palynological zonation of the Carboniferous and Permian rocks of Atlantic Provinces, Gulf of St. Lawrence and northern Canada, 1968-.

924. BASINGER, J.F., Univ. Saskatchewan (Geological Sciences):
Early Tertiary floras of western and northern Canada, 1982-.

925. BASINGER, J.F., ASH, S.R., Univ. Saskatchewan (Geological Sciences):
Late Triassic plants from the Heiberg Formation, Ellesmere and Axel Heiberg islands, District of Franklin, 1984-.

926. BASINGER, J.F., CHRISTOPHEL, D.C., Univ. Saskatchewan (Geological Sciences):
Eocene flowers and leaves of the Ebenaceae from Australia, 1980-85.

See:

Fossil flowers and leaves of the Ebenaceae from the Eocene of southern Australia; Can. J. Botany, vol. 63, p. 1825-1843, 1985.

927. BASINGER, J.F., DILCHER, D.L., Univ. Saskatchewan (Geologial Sciences):
Early bisexual flowers from the Cenomanian Dakota Formation of Kansas and Nebraska, 1980-.

928. EDLUND, S.A., Geol. Surv. Can.:
Vegetation distribution and relationships to surficial materials, Arctic Canada, 1976-.

See:

Vegetation – geology – climate relationships of western Melville Island, District of Franklin; Geol. Surv. Can., Paper 86-1A, p. 719-726, 1986.

929. JARZEN, D.M., National Museum Nat. Sci. (Paleobiology):
Mesozoic and Cenozoic vegetation of Canada, 1970-.

See:

Cretaceous-Tertiary boundary in Saskatchewan: further evidence of a terminal Cretaceous event affecting terrestrial vegetation; Abstract, 18th Ann. Meeting, Assoc. of Stratigraphic Palynologists, p. 20, 1985.

D.M. jarzen is preparing a paper with co-authors on palynological and iridium anomalies at the Cretaceous-Tertiary boundary in Saskatchewan, and another on recent fungal palynomorphs from Zambia.

930. LEGAULT, J.A., JONG, B., Univ. Waterloo (Earth Sciences):
Acritarchs of the Lindsay Formation (Ordovician), Ontario, 1986-88; M.Sc. thesis (Jong).

To determine the acritarch content of the Lindsay Formation and compare with the chitinozoan faunas from the same samples.

931. LEGAULT, J.A., LESACK, K., Univ. Waterloo (Earth Sciences):
Palynology of Early (?) Devonian sections from Devon Island and Ellesmere Island, Canadian Arctic, 1986-88; M.Sc. thesis (Lesack).

To determine the palynological content, age, and biostratigraphy of selected sections.

932. LEGAULT, J.A., SMITH, W., Univ. Waterloo (Earth Sciences):
Palynology of the Gull River Formation (Ordovician), southwestern Ontario, 1986-88; M.Sc. thesis (Smith).

To determine the palynological content and paleoecology of part of the Gull River Formation, from a cored section in southwestern Ontario.

933. LICHTI-FEDEROVICH, S., Geol. Surv. Can.:
Diatom analysis and paleoecological studies of Quaternary sediments, 1972-.

See:

Diatom dispersal phenomena: diatoms in rime frost samples from Cape Herschel, Central Ellesmere Island, Northwest Territories; Geol. Surv. Can., Paper 85-1B, p. 391-399, 1985.

934. MCGREGOR, D.C., Geol. Surv. Can.:
Silurian and Devonian spores of Canada, 1975-.

See:

Intra-Devonian series boundaries in Canada; Courier Forschunginstitut Senck., vol. 75, p. 157-176, 1985.

935. MCINTYRE, D.J., Geol. Surv. Can.:
Upper Mesozoic and Cenozoic palynology of western and northern Canada, 1982-.

936. MCIVER, E.E., BASINGER, J.F., Univ. Saskatchewan (Geological Sciences):
Fossil flora of the Ravenscrag Formation, southwestern Saskatchewan, 1982-.

The Paleocene Ravenscrag Formation is well exposed in the eastern Cypress Hills and yields an abundance of plant fossils. The many localities available contribute to a better understanding of diversity and community structure in the early Tertiary temperate floras.

937. MICHOUX, D., INRS-Géoressources:
Kystes de dinoflagellés de l'Éocène du SW de la France, 1979-.

Voir:

Palynostratigraphie de l'Éocène de Montfort-en-Chalosse (Landes, France); Revue de Micropaléontologie, vol. 28, no. 2, p. 138-153, 1985.

Inventaire des kystes de dinoflagellés dans l'Éocène du SW de la France. Comparison avec les assemblages décrits dans d'autres régions de l'Europe de l'ouest et datation.

938. MICHOUX, D., INRS-Géoressources:
Palynostratigraphie du Mésozoique des Grands Bancs de Terre-Neuve, 1982-.

Zonation à l'aide des kystes de dinoflagellés des formations du Jurassique supérieur et du Crétacé dans des puits pétroliers du bassin de Jeanne d'Arc au large de Terre-Neuve.

939. MOTT, R.J., Geol. Surv. Can.:
Quaternary palynology, 1969-.

940. SINGH, C., Alberta Research Council (Geol. Surv.):
Palynological study of the coal-bearing Late Cretaceous-Paleocene strata in the Red Deer River Valley, Alberta, 1973-87.

941. SINGH, C., Alberta Research Council (Geol. Surv.):
Palynostratigraphy of the Edmonton Group (Maestrichtian-Paleocene) in south-central Alberta, 1973-89.

942. SINGH, C., Alberta Research Council (Geol. Surv.):
Palynology and depositional environment of the Lower Cretaceous oil sands deposits of Alberta, 1983-88.

Depositional modeling of the Upper Mannville, east-central Alberta: implications for the recognition of marine shoreline deposits.

943. SWEET, A.R., Geol. Surv. Can.:
Palynological studies of Mesozoic and Tertiary coal measures in western and northern Canada, 1971-.

See:

Stratigraphy, sedimentology and palynology of the Kootenay-Blairmore transition in southwestern Alberta and southeastern British Columbia; Geol. Surv. Can., Paper 84-15, 1986.

944. SWEET, A.R., Geol. Surv. Can.:
Macropaleontology, micropaleontology and palynology of Devonian, Cretaceous and Tertiary rocks of the Interior Plains, 1985-.

945. UTTING, J., Geol. Surv. Can.:
Palynology of Carboniferous, Permian and Triassic rocks of northern and western Canada, 1981-.

See:

Preliminary results of palynclogical studies of the Permian and lowermost Triassic sediments, Sabine Peninsula, Melville Island, Canadian Arctic Archipelago; Geol. Surv. Can., Paper 85-1B, p. 231-238, 1985.

Palynomorphs from the type section of the Otto Fiord Formation (Upper Carboniferous) on Ellesmere Island, Queen Elizabeth Islands, Canada; Bull. Can. Soc. Petrol. Geol., vol. 33, no. 3, p. 341-349, 1985.

946. WARNER, B.G., Univ. Waterloo (Earth Sciences):
Age, origin, and developmental history of peatlands in Ontario through the use of pollen, plant macrofossils and testate amoebae, 1985.

947. ZODROW, E.L., Univ. College of Cape Breton (Geology):
Pecopterids of Sydney Coalfield, Nova Scotia, 1980-.

The study has been narrowed down to the cyatheoid members of the **Pecopteris arborescens** Group and the first part considers synonymy and identification criteria for this compression/impression material. Studied are type specimens from the USA (Lesquereux Collections); Spain (R.H. Wagner Collections); Britain (Kidston Collection), and France (Lille, Collections). The object is to re-examine these specimens in the light of the new paleobotanical concepts and advanced technology.

948. ZODROW, E.L., Univ. College of Cape Breton (Geology):
Odontopterid fern-like foliage in the Canadian Carboniferous of eastern Canada, 1981-.

See:

Odontopteris Brongniart in the Upper Carboniferous of Canada; Palaeontographica, Abt. B, vol. 196, p. 79-110, 1985.

A study of the pinnule morphology in naturally macerated specimens from Sydney. Particularly, rachial vein architecture is detailed and some taphonomic effects on it. References are made to USA material (Kansas) and Spanish material (Cantabrian Mountains, NW Spain). Basic data for the Cantabrian (lower Stephanian) presence in Sydney Coalfield.

949. ZODROW, E.L., Univ. College of Cape Breton (Geology):
The taxonomic status of **Pecopteris acadica** Bell, 1962, 1986-.

With the co-operations of several internationally-known paleobotanists it is hoped to resolve the uncertainty about the taxonomic status of the morphospecies. This is important for a better correlation among the Spanish, USA, Canadian, British and German Upper Carboniferous sequences.

EXPERIMENTAL/EXPÉRIMENTAL

950. BRYNDZIA, L.T., SCOTT, S.D., Univ. Toronto (Geology):
Variation in Mg/Fe ratio of cordierite as a function of P.T. and activities of sulfur and oxygen, 1985-86.

To quantify Fe/Mg variations in cordierite with respect to f_{O_2} and f_{S_2} conditions (at (T.P.) during its crystallization. Aplication of the results are designed to elucidate the conditions under which cordierite (+ other ferromagnesian minerals) forms in rocks affected by sulfide-oxide-silicate equilibria during metamorphism of sulfide deposits and their host rocks.

951. BRYNDZIA, L.T., SCOTT, S.D., LUSK, J., Univ. Toronto (Geology), McQuarie Univ., Australia (Geology):
Phase relations and thermodynamics in the Fe-Zn-S system, 1984-86.

These experiments provide much needed data on the variations of FeS activity in sphalerite, (in equilibrium with pyrrhotite) as a function of P and T. Results of this study will enable the refinement of the sphalerite geobarometer and extend its application to a much broader range of natural parageneses.

952. JAMIESON, H., Queen's Univ. (Geological Sciences):
Experimental solutions to petrological problems involving spinel.

953. SKIPPEN, G.B., MARSHALL, D., ADCOCK, S., MCKINSTRY, B.J., Carleton Univ. (Geology):
Experimental study of minerals and dissolved species, 1984-; M.Sc. thesis (McKinstry), Ph.D. thesis (Adcock).

PETROLOGY/PÉTROLOGIE

See:

Synthetic and natural tremolite in equilibrium with forsterite, enstatite, diopside and fluid; Contrib. Mineral. Petrol., vol. 89, p. 256-262, 1985.

Externally heated pressure vessels are used to study mineral stability, mineral solubility and to grow synthetic fluid inclusions. The objective is to contribute to the improvement of the thermodynamic data base for minerals and dissolved species.

954. SPRAY, J.G., Univ. New Brunswick (Geology):
Laboratory simulation of shear heating on fault planes, 1985-.

See:

Shear heating effects investigated using friction welding apparatus (conference report); J. Geol. Soc., vol. 142, p. 1241, 1985.

Friction welding apparatus is being used to study shear heat phenomena in rock. Artificial pseudotachylyte has been generated under conditions comparable to the velocity and duration of a typial single jerk event (earthquake) occurring during stick-slip seismic faulting within brittle crust. Future studies will be directed to investigating heat generation in faults.

IGNEOUS/ROCHES IGNÉES

955. BACHINSKI, S.L.W., Univ. New Brunswick (Geology):
Characterization of the minettes and other lamprophyres of the Ards peninsula, Northern Ireland, 1984-86.

956. BACHINSKI, S.L.W., Univ. New Brunswick (Geology):
Complex zoning in phlogopites of minettes, Ards peninsula, Northern Ireland, 1984-86.

957. BACHINSKI, S.L.W., Univ. New Brunswick (Geology):
Residual liquids of minettes and lamproites, 1984-86.

958. BACHINSKI, S.L.W., Univ New Brunswick (Geology):
Sr and Nd isotopes in minettes, 1984-86.

959. BACHINSKI, S.L.W., Univ. New Brunswick (Geology):
A recommendation for discontinuing the use of 'soda-minette' as a rock name, 1985-86.

A draft of this manuscript has been sent to over 25 petrologists, world-wide, who work with minettes, lamproites, and other strongly potassic rocks, asking if they agree with the recommendation and, if so, would they be willing to have their names published as being in agreement; response to date has been unanimously in favor of the recommedation.

960. BACHINSKI, S.L.W., Univ. New Brunswick (Geology):
A re-examination of the minette of the Walsen Dike, Colorado, 1985-86.

961. BACHINSKI, S.L.W., BACHINSKI, D.J., Univ. New Brunswick (Geology):
Oxide minerals in minettes and related lamprophyres, 1981-86.

962. BACHINSKI, S.L.W., SIMPSON, E.L., Univ. New Brunswick (Geology), Univ. Regina (Geology):
Chemistry and morphology of feldspars of the Shaw's Cove minette, other lamprophyres, and lamproites, 1983-86.

963. BARAGAR, W.R.A., Geol. Surv. Can.:
Stratigraphy and petrology of the Natkusiak Basalts, Victoria Island, District of Franklin, 1975-.

964. BARR, S.M., MACDONALD, A.S., Acadia Univ. (Geology):
Petrology, age, and tectonic implications of metavolcanic and ophiolite belts in northern Thailand, 1977-.

See:

Occurrence of blueschist in the Nan River mafic-ultramafic belt, northern Thailand; Warti Geologi, vol. 11, p. 47-50, 1985.

Petrography, geochemistry, and tectonic significance of volcanic rocks in the San Kamphaeng area, northern Thailand; Proc. Ann. Technical Meeting, Dept. Geol. Sci., Chiang Mai Univ., 1985.

The discovery of blueschists in association with mafic and ultramafic rocks has confirmed the interpretation of the Nan Belt as a major tectonic suture zone. In contrast, the San Kamphaeng belt to the west consists of volcanic rocks of continental tholeiitic affinity and represents an incipient back-arc rift, not a major suture zone.

965. CLARK, A.H., FARRAR, E., STRONG, D.F., CHATTERJEE, A.K., Queen's Univ. (Geological Sciences), Memorial Univ. (Earth Sciences), Nova Scotia Dept. Mines and Energy:
Sn-W-Au project geologist: mineral assessment in Province of Nova Scotia, 1986.

See:

The rift – associated Permo-Triassic magmatism of the Eastern Cordillera, SE Peru: a precursor to the Central Andean Orogeny; in Magmatism at a Plate Edge, Blackie & Sons, Glasgow, 1985.

Exploration criteria for Sn and W mineralization in the Cordillera oriental of S.E. Peru; in Granite Related Mineral Deposits; Can. Instit. Min. Metal., 1985.

The volcano-plutonic King's Point complex, Newfoundland; Geol. Surv. Can., Paper 86-1A, p. 465-470, 1986.

Rb-Sr and ^{40}Ar-^{39}Ar studies and redefinition of the Ackley Granite, southeast Newfoundland; in Program of Abstracts, Newfoundland Section Geol. Assoc. Can. Annual Spring Meeting, St. John's, Newfoundland, 1986.

966. CLARK, A.H., MCNUTT, R.W., LONGSTAFFE, F.J., TILTON, G.R., BARREIRO, B.A., Queen's Univ. (Geological Sciences):
Long-term trends in the petrochemistry of calc-alkaline magmas in the Central Andean Main Arc Domain, 1975-.

Emphasis is focussed on the interrelationships of magma composition, crustal thickening and arc configuration over the past 80 Ma.

967. CLARK, A.H., PEARCE, T.H., ROEDER, P.L., WOLFSON, I., Queen's Univ. (Geological Sciences):
Nomarski interference contrast imaging of ferromagnesian minerals in etched-polished section, 1984-87.

Paper in press documents extremely fine oscillatory zoning in clinopyroxene phenocrysts and remarkable, problematic, zonal features in olivine phenocrysts from several localities.

968. CURRIE, K.L., Geol. Surv. Can.:
Alkaline rocks in Canada, 1968-.

See:

Geochronology of retrogressed granulites from Wilson Lake, Labrador; Geol. Surv. Can., Paper 85-1B, p. 191-197, 1985.

969. CURRIE, K.L., Geol. Surv. Can.:
Granite studies in the Appalachians, 1973-.

See:

The boundaries of the Avalon tectono-stratigraphic zone, Musquash Harbour – Loch Alva region, southern New Brunswick; Geol. Surv. Can., Paper 86-1A, p. 333-341, 1986.

970. CURRIE, K.L., Geol. Surv. Can.:
Geology of the Northern Long Range Mountains, Newfoundand and adjacent areas, 1984-.

971. DAVIDSON, A., Geol. Surv. Can.:
Granite studies in the Ennadai-Rankin Inlet region, District of Keewatin, 1966-.

972. DAVIDSON, A., Geol. Surv. Can.:
Granite studies in the Slave Province, District of Mackenzie, 1971-.

973. DENNIS, F.A.R., BARR, S.M., Acadia Univ. (Geology):
The Deep Cove Pluton and associated Cu-Mo-Ag-Bi mineralization, southeastern Cape Breton Island, Nova Scotia, 1985-87; M.Sc. thesis (Dennis).

Surface outcrops and drill core have been sampled, and detailed petrographic and geochemical studies of least altered, altered, and/or mineralized samples are in progress.

974. EDWARDS, G.R., DAVIS, D.W., Univ. Saskatchewan (Geological Sciences):
Petrogenesis and evolution of Archean volcanic-plutonic terranes, Wabigoon Subprovince, Ontario, 1983-87.

Field mapping, geochemistry and geochronology are used to support viable models for crustal history of the Wabigoon Subprovince. Magmatism in the western Wabigoon is young relative to much of the Superior Province and may have occurred in a rift-like structure in the older crust.

975. EMSLIE, R.F., Geol. Surv. Can.:
Geology, petrology and economic potential of the anorthosite suite in southern Labrador, 1975-.

See:

Atikonak River massif, Labrador; Geol. Surv. Can., Paper 86-1A, p. 755-758, 1986.

976. EMSLIE, R.F., Geol. Surv. Can.:
Petrology, mineralogy, geochemistry and mineral potential of a Helikian non-orogenic granitic suite in central Labrador and adjacent Quebec, 1979-.

977. GARCIA, E., Queen's Univ. (Geological Sciences):
A petrographic study of the Barroso Group and Capillune Formation volcanics in southern Peru, 1982-86; M.Sc. thesis.

The Barroso and Capillune volcanics are of interest due to their Pb-isotope content which indicates crustal assimilation of a 2 Ga basement gneiss. This project utilizes advanced petrographic techniques in a detailed study to search for mineralogical and textural evidence which supports the isotopic model.

978. GIBBINS, W.A., HOGARTH, D.D., Indian Affairs and Northern Development (NAP) Canada, Univ. Ottawa (Geology):
High magnesium peridiotites from the Archean Hope Bay volcanic belt, Slave Province, Northwest Territories, 1985.

Represent the first reported rocks of komatiitic affinity from the Slave Province.

979. GREENOUGH, J.D., PAPEZIK, V.S., Mount Allison Univ. (Geology), Memorial Univ. (Earth Sciences):
Cambrian volcanism and tectonism, 1979-86.

See:

Petrology and geochemistry of Cambrian volcanic rocks from the Avalon Zone in New Brunswick; Can. J. Earth Sci., vol. 22, no. 6, p. 881-892, 1985.

Petrology and geochemistry of Cambrian volcanic rocks from the Avalon Peninsula, Newfoundland; Can. J. Earth Sci., vol. 22, no. 11, p. 1594-1601, 1985.

980. GREENOUGH, J.D., PAPEZIK, V.S., Mount Allison Univ. (Geol.), Memorial Univ. (Earth Sciences):
Mesozoic volcanism of eastern North America, 1981-.

See:

Petrology and geochemistry of the early Mesozoic Caraquet dyke, New Brunswick, Canada; Can. J. Earth Sci., vol. 23, p. 193-201, 1986.

981. HAM, L.J., HORNE, R.J., Dalhousie Univ. (Geology), Nova Scotia Dept. Mines and Energy:
Mineralogy, petrology and geochemistry of Halifax Co. – Queensport:

1. Pluton – Guysborough Co., Nova Scotia, Canada;
2. Mineral Development Agreement – South Mountain Batholith bedrock mapping, 1982-1989.

See:

Geology of the South Mountain Batholith on the eastern half of N.T.S. Sheet 21A/16; Nova Scotia Dept. Mines and Energy, Rept. 86-1, 1986.

982. HILL, J.D., Geol. Surv. Can.:
Granites of the Eastern Meguma Terrane, Nova Scotia, 1985-.

See:

Granitoid plutons in the Canso area, Nova Scotia; Geol. Surv. Can., Paper 86-1A, p. 183-192, 1986.

983. HY, C., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Geological history of gold-bearing veins in Nova Scotia, 1985-88.

A detailed structural analysis and metamorphic study with special reference to veins, is being conducted in the Meguma Terrane between 62°30' and 63°00 with a view to better understanding the origin and history of gold-bearing veins.

984. JUSTINO, M., BARR, S.M., Acadia Univ. (Geology):
Geology and petrogenesis of the plutonic rocks of North Mountain, River Denys-West Bay area, Cape Breton Island, Nova Scotia, 1985-87; M.Sc. thesis (Justino).

To map and describe the petrography, geochemistry, and field relations of the granitoid rocks in the North Mountain area, to intrepret their petrogenesis and tectonic setting, and to investigate their possible relationship to Zn skarn mineralization in associated rocks.

985. KONTAK, D.J., CLARK, A.H., FARRAR, E., Queen's Univ. (Geological Sciences):
Magma genesis at the boundary of the Andean Orogen and the Brazilian Craton, 1982-86.

Our work defines, for the first time, the complex interrelationships between mantle-derived magmas and crustal melts in this "boundary layer" between orogen and craton.

986. LAMBERT, M.B., Geol. Surv. Can.:
Archean volcanic studies in the Slave-Bear Province, District of Mackenzie, 1973-.

987. LAMBERT, M.B., Geol. Surv. Can.:
Archean felsic volcanic complex near Regan Lake, District of Mackenzie, Northwest Territories, 1974-.

988. LAZNICKA, P., GABOURY, D., Univ. Manitoba (Earth Sciences):
Mineralized breccia Quartet Lakes region (Wernecke Mountains, Yukon), 1985-87; M.Sc. thesis (Gaboury).

989. MACLELLAN, H.E., TAYLOR, R.P., New Brunswick Forests, Mines, Energy (Mineral Res. Div.):
A petrochemical and metallogenic investigation of granites in the Burnthill Brook area of central New Brunswick, 1985-89.

See:

Preliminary geology map of the Burnthill Granite, Burnthill Brook area, central New Brunswick (Part of NTS 21 J/10W, Scale = 1:20 000); New Brunswick Forests, Mines, Energy, 1985.

To study the petrochemical evolution of Late Devonian granites and associated Sn-W mineralization in the Burnthill Brook area. Map preparations, petrography, geochemistry and radiometric dating of the Burnthill Granite and associated mineral deposits proceeding on schedule.

990. MARTELAIN, J., CHENEVOY, M., BÉLANGER, M., Université de Lyon, Ministère de l'Énergie et des Ressources du Québec:
Le batholite de l'Ungava, 1983-87; thèse de doctorate (Martelain).

Une compréhension des caractéristiques et de la genèse du batholite de l'Ungava.

991. MURPHY, J.B., St. Francis Xavier Univ. (Geology):
Petrogenesis of the igneous rocks, Antigonish Highands, Nova Scotia, 1984-.

See:

Cambrian volcanism in Nova Scotia, Canada; Can. J. Earth Sci., vol. 22, no. 4, p. 599-606, 1985.

992. NICHOLLS, J., STOUT, M.Z., Univ. Calgary (Geology and Geophysics):
Fluid inclusion in welded tuffs, Yellowstone/modelling of magmatic history.

See:

FORTRAN programs for calculation of fluid properties from microthermometric data on fluid inclusions; Computers and Geosciences, vol. VII, p. 619-645, 1985.

993. PEARCE, T.H., Queen's Univ. (Geological Sciences):
Theoretical study of mineral zoning patterns, 1982-.

To develop a set of equations using distribution coefficients and computer modelling which will be useful in the study of natural zoning patterns of magmatic crystals.

994. PEARCE, T.H., KOLISNIK, A.M., NIXON, G.T., Queen's Univ. (Geological Sciences):
Laser-interference studies of zoned phenocrysts from Volcan Popocatépetl, Mexico, 1985-87; M.Sc. thesis (Kolisnik).

See:

Laser interference studies of zoned volcanic phenocrysts, Volcan Popocatépetl, Mexico; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 90, 1986.

A detailed study of compositional zoning in plagioclase and orthopyroxene phenocrysts from andesitic lavas of Volcan Popocatépetl.

995. PEARCE, T.H., NIXON, G.T., Queen's Univ. (Geological Sciences):
Plagiocase phenocrysts as a record of magma mixing at Iztaccihuatl Volcano, Mexico, 1985-86.

See:

The record of magma mixing in plagioclase phenocrysts: laser interference profiling; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 108, 1986.

Laser interference and microprobe data used to determine the style and degree of compositional zoning of plagioclase phenocrysts in mixed lavas at Iztaccihuatl.

996. PEARCE, T.H., NIXON, G.T., Queen's Univ. (Geological Sciences):
Mineralogy and geochemistry of Quaternary lavas in the Valley of Mexico, 1985-.

A study of the compositional zoning of olivine pyroxenes, and plagioclase crystals in geochemically primitive and evolved calc-alkaline lavas associated with monogenetic volcanism in the Valley of Mexico.

997. PEARCE, T.H., NIXON, G.T., KOLISNIK, A.M., Queen's Univ. (Geological Sciences):
Laser applications in the earth sciences: laser interference microscopy, laser fluorescence, holography, 1980-; M.Sc. thesis (Kolisnik).

See:

Interference imaging of plagioclase phenocrysts in orogenic andesites and dacites: laser interference microscope and nomarski observation; Geol. Assoc. Can. – Mineral Assoc. Can., Program with Abstracts, vol. 10, p. A44, 1985.

Laser fluorescence: new technique for trace crystal analysis in urinary calculi; Can. Urology Assoc., Annual Meeting Montreal, 1985.

Recognition of simple and complex zoning in olivine and orthopyroxene phenocrysts using laser interference microscopy; Mineralogical Magazine, vol. 48, p. 547-550, 1985.

A $250,000 laser equiped laboratory, unique in the earth sciences, is being used to explore research topics in the applications of lasers to the earth sciences. Present emphasis is on compositional zoning profiles in crystals from igenous and metamorphic rocks. Work is underway to begin studies of zoned cements in sedimentary rocks and other topics.

998. PEARCE, T.H., SWINAMER, R.T., NIXON, G.T., Queen's Univ. (Geological Sciences):
Detailed petrographic and geochemical study concerning the petrogenesis of monogenetic volcanic rocks from the Valley of Mexico, 1984-86; M.Sc. thesis (Swinamer).

See:

Volcanology of the Sierra Chichinautzin Region, Mexico: preliminary results; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 132, 1986.

A detailed petrogenetic, petrochemical and petrographic study of monogenic volcanics from the Valley of Mexico.

999. PICARD, C., LAMOTHE, D., Ministère de l'Énergie et des Ressources du Québec:
Pétrologie des roches magmatiques de la Fosse de l'Ungava: Résultats préliminaires de l'été 1985, 1985-86.

Voir:

Pétrologie des roches magmatiques de la Fosse de l'Ungava: Coupes lithologiques au sud du Lac Lanyan et à l'est du Lac Cécilia; MERQ, DP 85-26, 1986.

Ce travail vise une compréhension des charactéristiques pétrochimiques et de la genèse des laves de Povungnituk et Chukotat.

1000. RUSSELL, J.K., Univ. British Columbia (Geological Sciences):
Application of phase equilibria to basalt petrogenesis.

See:

Application of Duhem's Theorem to the estimation of extensive and intensive properties of basaltic magmas; Can. Mineral., vol. 23, p. 479-488, 1985.

Testing magmatic hypotheses with thermodynamic modelling; Mineral. Assoc. Can., Short course on silicate melts, chapter 8, 1986.

Thermodynamic and mass balance constraints are used to model crystallization processes in basalt magmas. Unique paths of crystallization are determined that reflect bulk composition and initial temperatures and pressures of crystallization.

1001. SCHAU, M., Geol. Surv. Can.:
Volcanic rocks of the Prince Albert belt, Districts of Franklin and Keewatin, 1972-.

1002. SCOATES, R.F.J., RAUDSEPP, M., TURNOCK, A.C., Geol. Surv. Can., Univ. Manitoba (Earth Sciences):
The composition of cumulate primary minerals in the Fox River Sill, Manitoba, 1983-86.

A report was given at the May 1986 meeting GAC/MAC annual meeting, showing cryptic variation in the olivine and augite in 100 samples across the lower sill.

1003. SPRAY, J.G., Univ. New Brunswick (Geology):
Metamorphism of Archaean ultramafic-mafic complexes (greenstones), 1980-.

See:

Dynamothermal transition zone between Archaean greenstone and granitoid gneiss at Lake Dundas, Western Australia; J. Structural Geol., vol. 17, p. 187-203, 1985.

Studies of the metamorphic evolution of Archaean greenstones is presently centred on examples from Western Australia and Brazil with particular emphasis on static versus dynamic styles of metamorphism, Au-Ag mineralization and Ni-sulphide deposits.

1004. SPRINGER, R.K., Brandon Univ. (Geology):
Mineralogy of the Pine Hill Intrusive Complex, western Sierra Nevada, California, 1981-86.

1005. TAYLOR, F.C., Geol. Surv. Can.:
Volcanic rocks of Kaminak Lake region, Northwest Territories, 1984-.

1006. THICKE, M.J., BARR, S.M., Acadia Univ. (Geology):
Petrology and economic potential of metavolcanic and granitoid rocks, East Bay and Coxheath Hills, southeastern Cape Breton Island, Nova Scotia, 1986-88; M.Sc. thesis (Thicke).

Regional mapping and sampling will be followed by petrography, geochemistry, and age dating to investigate and compare the tectonic setting and mineralization potential of igneous rocks in these two belts.

1007. TUACH, J., STRONG, D.F., DAVENPORT, P.H., DICKSON, L., Newfoundland Dept. Mines and Energy; Memorial Univ. (Earth Sciences).

Migmatic metallogenic processes in the Ackley Granite Suite, Newfoundland, 1983-; Ph.D. thesis (Tusch).

See:

Variations in oxygen isotope ratios related to source terranes and to hydrothermal regimes in the Ackely Granite Newfoundland; in Granite-related mineral deposits, CIM extended abstracts, Halifax, 1985.

1008. WHALEN, J.B., Geol. Surv. Can.:
Study of Gaspé granites, Québec, 1984-.

See:

Petrogenesis of the McGerrigle plutonic complex, Gaspé, Quebec: a preliminary report; Geol. Surv. Can., Paper 86-1A, p. 265-274, 1986.

1009. WHALEN, J.B., Geol. Surv. Can.:
Study of the New Brunswick batholith belt, New Brunswick, 1985-.

1010. WILSON, J.A., Alberta Research Council (Geol. Surv.):
Athabasca Basin study/mineral core research facility, 1979-86.

See:

Geology of the Athabasca Group in Alberta; Alberta Research Council, Bull. No. 49, 1985.

Publication of a bulletin on the basement and saprolite beneath the Athabasca Group is planned for 1986 to complete this study. The presentation of mineral exploration core in the Mineral Core Research Facility (formerly the Mineral Exploration Sample Storage Facility) is ongoing.

METAMORPHIC/ROCHES MÉTAMORPHIQUES

1011. BRIGHT, E.G., Ontario Geol. Surv.:
Petrography of rocks of the Precambrian basement encountered in deep drillholes beneath the Phanerozoic cover rocks, southern Ontario, 1985-.

1012. BRYNDZIA, L.T., SCOTT, S.D., Toronto (Geology):
Stability and composition of chlorite as a function of P, T and activities of sulfur and oxygen, 1980-85; Ph.D. thesis (Bryndzia).

1013. CURRIE, K.L., Geol. Surv. Can.:
Structure and petrology of the aureole of the Mount Albert periodite, Québec, 1984-.

1014. DERAGON, R., MARTIGNOLE, J., Université de Montréal (Géologie):
Geothermobarométrie des roches de l'auréole du complexe anorthositique de Morin, Québec, 1984-86; thèse de maîtrise (Deragon).

Voir:

P-T evolution of high-grade gneisses around the Morin anorthosite (Grenville Province, Quebec); Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 62, 1986.

Étude des conditions de température et de pression dans des charnockites et les roches associées situées autour de l'anorthosite de Morin.

1015. FINN, G.C., Brock Univ. (Geological Sciences):
Geochronology and geochemical evolution of the Hopedale Block, Labrador, 1982-.

See:

Rb-Sr isotopic systematics and rare earth element lithogeochemistry of the Archaean grey gneiss, Hopedale Block, Labrador; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A18, 1985.

1016. FRASER, J.A., Geol. Surv. Can.:
Metamorphism in the Canadian Shield, 1974-.

1017. FROESE, E., Geol. Surv. Can.:
A survey of metamorphism in the Canadian Shield, 1978-.

1018. FROESE, E., Geol. Surv. Can.:
Metamorphism in the Kisseynew Subprovince, 1980-.

See:

Anthophyllite-bearing rocks in the Flin Flon-Sherridon area, Manitoba; Geol. Surv. Can., Paper 85-1B, p. 501-504, 1985.

1019. GORDON, T.M., Geol. Surv. Can.:
Metamorphism of volcanic rocks, Crowduck Bay, Manitoba, 1980-.

1020. GORDON, T.M., Geol. Surv. Can.:
Metamorphic processes in the Kisseynew sedimentary gneiss belt, Manitoba, 1983-.

1021. GRANT, M., TRUDEL, P., École Polytechnique (Génie minéral):
Relation entre le métamorphisme, l'altération hydrothermale et la minéralisation aurifère à la mine Sigma, Val d'Or, Québec, 1984-86; M.Sc.A. (Grant).

1022. INDARÈS, A., MARTIGNOLE, J., Université de Montréal (Géologie):
Géothermobarométrie le long de la géotraverse Montréal-Val d'Or, Québec, 1983-87; thèse de doctorat (Indarès).

See:

Biotite-garnet thermometry in granulite facies: the role of Ti and Al; American Mineral., vol. 70, p. 272-278, 1985.

Biotite-garnet thermometry in granulite facies: equilibrium criteria; Can. Mineral., vol. 23, p. 187-193, 1985.

Application des données thermobarométriques à l'élaboration de modèles tectoniques dans la province de Grenville.

1023. KAWAHATA, H., SCOTT, S.D., Univ. Toronto (Geology):
Alteration of seafloor basalts and their ancient analogs, 1985-87.

See:

Subseafloor hydrothermal alteration in the Galapagos spreading centre; Chemical Geol., vol. 49, p. 259-274, 1985.

Magnetic properties and alteration in basalt, hole 504B, Deep Sea Drilling Project Leg 83; Initial Repts. Deep Sea Drilling Project, vol. 83, p. 331-338, 1985.

Geological and chemical environments of submarine hot spring areas in Explorer Ridge and Tuzo Wilson areas; comparison between ancient and present hydrothermal systems. Research involves CASM and ODP cruises as well as on-land field work in Cyprus and other ophiolites.

1024. MENGEL, F.C., RIVERS, T., Memorial Univ. (Earth Sciences);
Tectonometamorphic evolution of the Hudsonian Front, Saglek Fjord, northern Labrador, 1983-87; Ph.D. thesis (Mengel).

1025. NUTMAN, A.P., RIVERS, T., Memorial Univ. (Earth Sciences):
A study of reaction progress and fluid rock interaction in shear zones in early Archean gneisses, West Greenland, 1986-87.

1026. PERREAULT, S., MARTIGNOLE, J., Université de Montréal (Géologie):
Géothermobarométrie des migmatites à cordiérite de la région de Blanc Sablon (Province de Grenville), Québec, 1982-85; thèse de maîtrise (Perreault).

Voir:

CO_2-rich cordierite in high-temperature migmatites (north-eastern Grenville province, Quebec); Geol. Assoc. Can. – Mineral Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 114, 1986.

1027. RELF, L., RIVERS, T., Memorial Univ. (Earth Sciences):
A study of fluid/rock interaction in shear zones, Yellowknife, Northwest Territories, 1985-87.

1028. RIVERS, T., Memorial Univ. (Earth Sciences):
A study of corona gabbros in western Labrador, 1984-86.

1029. SCHANDL, E.S., WICKS, F.J., Univ. Toronto (Geology), Royal Ontario Mus. (Mineralogy and Geology):
Alteration of ultramafic rocks in the Kidd volcanic complex of the Abitibi Greenstone Belt, Ontario, Canada, 1983-87; Ph.D. thesis (Schandl).

1030. SCHAU, M., Geol. Surv. Can.:
Granulites of northern Churchill Province, District of Franklin, 1984-.

See:

High grade metamorphic rocks of northwestern Melville Peninsula, District of Franklin; Geol. Surv. Can., Paper 86-1A, p. 667-674, 1986.

1031. SKIPPEN, G.B., TROMMSDORFF, E.V., MARSHALL, D., FLAVELLE, P., Carleton Univ. (Geology):
Hydrothermal processes in metasomatism, 1985-; M.Sc. thesis (Flavelle).

See:

The influence of NaCl and KCl on phase relations in metamorphosed carbonate rocks; Amer. J. Sci., vol. 286, p. 81-106, 1986.

Halite and sylvite as solid inclusions in high-grade metamorphic rocks; Contrib. Mineral. Petrol., vol. 89, p. 24-29, 1985.

Involves field and laboratory research on the origin of metasomatic rocks associated with vein systems in high grade metamorphic rocks. Petrographic, textural, and fluid inclusion data suggest that the existence of two fluids, a saline brine, and a CO_2-rich vapour, may account for the evolution of such metasomatic rocks.

1032. SMITH, D.G.W., DUKE, J.M., Univ. Alberta (Geology):
Behaviour of rare earth elements during sanidinite facies metamorphism, 1985-87; Ph.D. thesis (Duke).

Neutron activation techniques are being used to determine the behaviour of rare earth elements during sanidinite facies metamorphism of Dalradian phyllites at Sithean Sluaigh, Argyllshire, Scotland. In extreme cases, the phyllites in the aureole which surrounds a Tertiary volcanic neck, have broken down to produce rheomorphic granophyres and highly desilicated aluminous, ferromagnesian residues.

1033. SPRAY, J.G., Univ. New Brunswick (Geology):
Metamorphism in shear zones, 1977-.

Prograde and retrograde metamorphic effects in shear zones are being studied with particular emphasis on overthrust situations (e.g. The Development of Metamorphic Soles beneath certain Ophiolite complexes).

1034. VAN NOSTRAND, T., RIVERS, T., Memorial Univ. (Earth Sciences):
A petrological, structural and geochronological study across the boundary between the Groswater Bay and Lake Melville Terranes, Grenville Province, eastern Labrador, 1983-86; M.Sc. thesis (van Nostrand).

1035. WICKS, F.J., OZORAY, J., Royal Ontario Mus. (Mineralogy and Geology):
Mineralogy and geochemistry of the chrysotile asbestos deposits of the eastern townships, Quebec, 1982-85.

1036. WICKS, F.J., OZORAY, J., Royal Ontario Mus. (Mineralogy and Geology):
Mineralogy and geochemistry of the serpentinized ultramafic bodies of the Manitoba Nickel Belt, 1985-88.

The various serpentinized ultramafic bodies of the Manitoba Nickel Belt are composed of different mineral assemblages indicating more than one path of alteration. A series of representative samples were selected for oxygen and hydrogen isotope analysis to help define the direction of future isotope studies.

1037. WICKS, F.J., OZORAY, J., HIGGINS, M.D., Univ. Toronto (Geology), Royal Ontario Mus. (Mineralogy and Geology):
Mineralogy and geochemistry of the chrysotile asbestos deposits of Ontario, 1982-86.

See:

Mineralogy and geochemistry of the chrysotile asbestos deposits of Ontario: a progress report on the stable isotope and boron survey; Ontario Geol. Surv., Misc. Paper 127, p. 25-29, 1985.

SEDIMENTARY/ROCHES SÉDIMENTAIRES

1038. VON BITTER, P.H., ELEY, B.E., Royal Ontario Mus. (Invert. Palaeontology):
The stratigraphic, petrographic and palynologic characteristics of chert as utilized by Ontario's pre-historic peoples, 1982-86.

1039. YOUNG, H.R., BRISTOL, C.C., Brandon Univ. (Geology):
Mineralogical and geochemical investigation of the Odanah Shale, southwestern Manitoba, 1982-86.

GENERAL/GÉNÉRALITÉES

1040. CLARK, G.S., WEBER, W., Univ. Manitoba (Earth Sciences), Manitoba Dept. Energy and Mines (Geol. Services):
Evolution of Molson Plutonic Domain, 1980-86.

1041. GREENWOOD, H.J., MCMULLIN, D.W.A., Univ. British Columbia (Geological Sciences):
Evolution of pressure and temperature in the Barkerville and Cariboo Terranes, Quesnel Lake, British Columbia; Ph.D. thesis (McMullin).

To produce a synthesis on the metamorphic history of the northernmost part of the Shuswap Complex. To this end the study will utilise both classical petrologic techniques as well as some more recent methods for the determination of pressure and temperature.

1042. LAZNICKA, P., Univ. Manitoba (Earth Sciences):
Breccias: petrology, origin, associations, mineralization ,1975-87.

1043. ROUSELL, D.H., TRERISIOL, D.D., Laurentian Univ. (Geology):
Geology and mineralization of the Wanapitei complex, Grenville Front Tectonic Zone, Ontario, 1983-86.

Current research: Structural geology of the Grenville Front, Wanapitei River area, Ontario.

1044. TURNOCK, A.C., Univ. Manitoba (Earth Sciences):
Metamorphosed aluminous ironstones in the Archean Bird River greenstone belt, Manitoba, 1983-86.

Garnet-rich rocks occur both as sedimentary beds in volcaniclastic conglomerates, and in fractures in felsic porphyrys – study aimed at the relationship between volcanic and sedimentary processes.

QUATERNARY GEOLOGY/GÉOLOGIE DU QUATERNAIRE

1045. ANDERSON, T.W., Geol. Surv. Can.:
Quaternary paleoecology, Great Lakes, 1978-.

1046. ANDRIASHEK, L.D., Alberta Resarch Council (Geol. Surv.):
Quaternary stratigraphy of the Edmonton map area, NTS 83H, Alberta, 1978-85.

1047. BAKER, C.L., STEELE, K.G., MCCLENAGHAN, M.B., Ontario Geol. Surv.:
Reconnaissance overburden sampling, Matheson area, Ontario, 1983-90.

An ongoing program to define the Quaternary stratigraphy and history of the Matheson area as an aid to overburden drift exploration in the area.

1048. BARNETT, P.J., Ontario Geol. Surv.:
Quaternary geology of Renfrew County, Ontario, 1977-86.

1049. BARNETT, P.J., Ontario Geol. Surv., Univ. Waterloo (Earth Sciences):
Quaternary geology of the Long Point-Port Burwell area, Ontario, 1982-86; Ph.D. thesis.

1050. BATTERSON, M., Newfoundland Dept. Mines and Energy:
Quaternary mapping and drift exploration in Labrador; 1984-89.

See:

Quaternary exploration and surficial mapping in the Letita Lake area, Labrador; Newfoundlnad Dept. Mines and Energy, Report 86-1, 1986.

To be an aid to mineral exploration activities in Labrador by characterizing glacial dispersal patterns from mineralization of known extent and subsequently applying these techniques to areas where mineralization sources are, as yet, undiscovered.

1051. BEDNARSKI, J., ENGLAND, J., Univ. Victoria (Geography), Univ. Alberta (Geography):
Late Quaternary history and glacioisostasy of northern Ellesmere Island, Northwest Territories.

An ongoing project concerning High Latitude environmental change during the late Cenozoic. Emphasis is on landscape evolution caused by glaciations and changes in relative sea level.

1052. BLAKE, W., JR., Geol. Surv. Can.:
Quaternary geochronology, Arctic Islands, 1975-.

See:

Radiocarbon dating with accelerator mass spectrometry: results from Ellesmere Island, District of Franklin; Geol. Surv. Can., Paper 85-1B, p. 423-429, 1985.

1053. BLASCO, S.M., Geol. Surv. Can.:
Surficial geology and geomorphology, Mackenzie Bay – continental shelf, 1970-.

See:

A sea-level curve for the Canadian Beaufort Sea; Can. J. Earth Sci., vol. 22, no. 10, p. 1383-1393, 1985.

1054. BOUCHARD, M., OCCHIETTI, S., Université du Québec à Montréal (Géographie):
Paléoenvironnements quaternaires et paléosurfaces au Québec et dans les régions périphériques, 1985-86.

Voir:

Weathering and weathering residuals on the Canadian Shield; Fennia, vol. 2, 1985.

Characteristics and age of saprolites on the Canadian Shield: a reflexion on glacial scoaring; First Internat. Conf. Geomorphology, Manchester, 1985.

Le rebord sud-est du Bouclier canadien a été assez bien récuré par les glaciers pléistocènes. Cependant quelques sites protégés existent. Il y a des différences dans la dynamique glaciaire entre le Bouclier Fennoscandien et ce secteur du Bouclier canadien et sans doute entre les Hautes Terres de la Gaspésie et du Nouveau Brunswick, ce que nous nous proposons d'étudier.

1055. BRAGG, D., Newfoundland Dept. Mines and Energy:
Reconnaissance study of bedrock aggregate potential for offshore and industrial use, 1985-86.

Project will continue computerization of aggregate deposit data as it becomes available from field projects. Also a preliminary assessment of bedrock of the Avalon Peninsula as a source of aggregate. This will include sampling of bedrock for geotechnical properties.

1056. BROOKES, I.A., York Univ. (Geography), Royal Ontario Mus.:
The Dakhleh Oasis Project; Quaternary Geology and Geomorphology, 1982-.

Multi-disciplinary project aimed at inventory and explanation of environmental and cultural data over past 0.5 Ma in large oasis centred on 25.5°N, 29°E. Funded by SSHRCC, Soc. Study Egypt. Antiqs. (Toronto) and NSERCC.

1057. BROOKES, I.A., MCANDREWS, J.W., SCOTT, D.B., ROBERTS, R.A., York Univ. (Geography), Royal Ontario Mus., Dalhousie Univ., Environment Canada:
Glaial and sea-level history of Newfoundland, 1982-.

See:

Postglacial relative sea-level change, Port au Port area, Newfoundland; Can. J. Earth Sci., vol. 22, p. 1039-1047, 1985.

Radiocarbon age of rock-boring **Hiatella arctica** (Linné) and postglacial sea-level change at Cow Head, Newfoundland; Can. J. Earth Sci., vol. 22, p. 136-140, 1985.

1058. BURN, C.R., SMITH, M.W., MICHEL, F.A., Carleton Univ. (Geology):
A field investigation of water movement in permafrost soil, 1983-; Ph.D. thesis (Burn).

1059. CLAGUE, J.J., Geol. Surv. Can.:
Quaternary geology, upper Fraser River Basin, British Columbia, 1981-.

1060. DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology, terrain inventory, northeastern Manitoba, 1975-.

1061. DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology – terrain inventory, northwestern Manitoba, 1980-.

See:

Gold concentrations in till, Great Island, northern Manitoba; Geol. Surv. Can., Paper 86-1A, p. 779-786, 1986.

1062. DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology and geomorphology, northern Melville Peninsula, District of Franklin, 1985-.

1063. DREIMANIS, A., HICOCK, S.R., HART, B., Univ. Western Ontario (Geology):
Stratigraphic and structural studies of tills in the north shore of Lake Erie, Ontario, 1980-; M.Sc. thesis (Hart).

See:

Glaciotectonic structures as useful ice-movement indicators in glacial deposits: four Canadian case studies; Can. J. Earth Sci., vol. 22, p. 339-346, 1985.

Stratigraphic and structural studies along the north shore of Lake Erie are revising our thinking on the genesis of tills and the interpretation and significance of glaciotectonic flow, and primary structures exposed in the lake cliffs.

1064. DUBOIS, J.-M.M., PARENT, M., Université de Sherbrooke (Géographie):
Variations quaternaires du niveau marin aux îles de la Madeleine, Québec, 1985-88.

Retracer et dater les niveaux marins wisconsiniens et holocènes.

1065. DUBOIS, J.-M.M., PARENT, M., BAIL, P., Université de Sherbrooke (Géographie):
Le Quaternaire des Cantons de l'Est, Québec, 1980-88.

Voir:

Barrage morainique et surimposition: exemple dans la vallée de la rivière Coaticook, sud du Québec; Photo interprétation, no. 85-3, 1985.

Paléogéographie du Québec méridional entre 12 500 et 8 000 ans BP; Recherches amérindiennes au Québec, vol. 15, p. 17-37, 1985.

Influences du relief sur le mode de déglacement des bassins des rivières Coaticook et Hall, Québec et New Hampshire; Annales de l'ACFAS, vol. 52-53, p. 175, 1985.

La déglaciation du bassin de la rivière Coaticook, sud du Québec; Réunion ann. Ass. Can. Géogr., progr. et rés., p. 95, 1985.

Mise au point sur le Quaternaire des Cantons de l'Est et esquisse paléogéographique.

1066. DYKE, A.S., Geol. Surv. Can.:
Quaternary geology – terrain inventory, Boothia Peninsula, northeast Keewatin, and Somerset and Prince of Wales Islands, District of Franklin, 1975-.

1067. DYKE, A.S., Geol. Surv. Can.:
Quaternary geology – terrain inventory, Frances Lake, Yukon Territory, 1981-.

1068. DYKE, A.S., Geol. Surv. Can.:
Quaternary geology – terrain inventory, Prince of Wales Island, King William Island and adjacent mainland Keewatin, 1981-.

1069. DYKE, A.S., Geol. Surv. Can.:
Quaternary history and surficial materials of northwestern Baffin Island, District of Franklin, 1983-.

1070. EDLUND, S.A., Geol. Surv. Can.:
Surficial geology – terrain inventory, Bathurst-Cornwallis and eastern Melville Islands, District of Franklin, 1976-.

1071. FINAMORE, P., Ontario Geol. Surv.:
Opapimiskan Lake project, 1984-87.

Aims: Quaternary geological mapping and bedrock dispersion studies.

1072. FINCK, P.W., GRAVES, R.M., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith – Pleistocene mapping, 1984-89.

See:

Air photograph interpretation of the surficial geology of map sheets 11D/05, 11D/12, 21A16; Nova Scotia Dept. Mines and Energy, Report 85-1, p. 105-114, 1985.

South Mountain Batholith project – Pleistocene survey; Nova Scotia Dept. Mines and Energy, Information Ser. No. 9, p. 59-62, 1986.

1073. FULTON, R.J., Geol. Surv. Can.:
Quaternary geology of the Canadian Cordillera, 1975-.

See:

Quaternary sediments, Columbia River Valley, Revelstoke to the Rocky Mountain Trench, British Columbia; Geol. Surv. Can., Paper 84-13, 1985.

1074. FULTON, R.J., Geol. Surv. Can.:
Surficial geology, Cobden area (Quebec part), 1980-.

1075. GADD, N.R., Geol. Surv. Can.:
Correlation of Quaternary geology; Great Lakes – St. Lawrence Valley region, 1978-.

1076. GEDDES, R.S., BAJC, A.F., Ontario Geol. Surv., Univ. Waterloo (Earth Sciences):
Quaternary mapping and special projects – Hemlo area, Ontario, 1983-86; M.Sc. thesis (Bajc).

See:

Quaternary geology – White Lake (Hemlo) area; Ontario Geol. Surv., Prel. Map P. 2849, 1985.

Quaternary geology – Cedar Lake (Hemlo) area; Ontario Geol. Surv., Prel. Map P. 2850, 1985.

Total program involves 5 x 1:30 000 map sheets, a Geochemical Case History and an Open File Report.

1077. GRANT, D.R., Geol. Surv. Can.:
Surficial geology, St. Anthony – Blanc Sablon map-areas, Newfoundland, 1969-.

1078. GRANT, D.R., Geol. Surv. Can.:
Surficial geology, Cape Breton Island, Nova Scotia, 1970-.

1079. GRANT, D.R., Geol. Surv. Can.:
Surifical geology of Newfoundland, 1974-.

1080. GRANT, D.R., Geol. Surv. Can.:
Quaternary stratigraphy Yarmouth region, Nova Scotia, 1979-.

1081. HICOCK, S.R., Univ. Western Ontario (Geology):
Pleistocene glacial dispersion in Buttle valley, Vancouver Island: a feasibility study for alpine drift prospecting, 1984-85.

Westmin Resources massive sulphide ore was dispersed downvalley in the clay fraction only, which shows a dispersion train about 20 km long for Cu, Pb, Zn. Based on this case study geochemical anomalies in lodgment till should be traced upglacier into tributary valleys on the same valley side.

1082. HICOCK, S.R., Univ. Western Ontario (Geology):
Anomalous carbonate till near Hemlo, Ontario: origin and application to gold exploration, 1985-.

The till was distally derived and englacially transported at least 200 km from the James Bay Lowland and thus useless for gold exploration by drift prospecting. However, it acts as a good buffer for acid precipitation. Gold and other metal values are at background levels in lodgment and meltout facies.

1083. HICOCK, S.R., ARMSTRONG, J.E., HEBDA, R.J., MILLER, R.F., ALLEY, N.F., PARKIN, G.W., Univ. Western Ontario (Geology):
Stratigraphic and drift genesis studies in coastal southwest British Columbia, 1976-86; M.Sc. thesis (Parkin).

See:

Pre-Vashon fossil Coleoptera of Fraser age from the Fraser Lowland, British Columbia; Can. J. Earth Sci., vol. 22, p. 498-505, 1985.

The stratigraphy, palynology, and climatic significance of pre-middle Wisconsin Pleistocene sediments, southern Vancouver Island, British Columbia; Can. J. Earth Sci., vol. 23, no. 3, p. 369-382, 1986.

The stratigraphic succession, paleo-environment, and drift genesis of much of the Georgia Depression has been worked out at a regional scale and formalized. More detailed studies are in progress by paleobiologists. The area is rich in organics and dateable materials.

1084. HICOCK, S.R., KERRICH, R., RUTTER, N.W., Univ. Western Ontario (Geology):
Amino acid and isotope studies of Pleistocene fossils from coastal southwest British Columbia, 1977-86.

Pleistocene correlations on either side of the Strait of Georgia have been confirmed and paleo-meltwater flushing of the Strait documented. Paleoclimatic inferences and atmosphere-hydrosphere interactions are being finalized. Relative age dating by amino acid is now possible for five acids.

1085. HODGSON, D.A., Geol. Surv. Can.:
Surficial geology and geomorphology of central Ellesmere Island, District of Franklin, 1972-.

1086. HODGSON, D.A., Geol. Surv. Can.:
Surficial geology, geomorphology and terrain inventory of the Ringnes and adjacent islands, District of Franklin, 1976-.

1087. HUGHES, O.L., Geol. Surv. Can.:
Quaternary geology, Aishihik Lake, Yukon, 1965-.

1088. HUGHES, O.L., Geol. Surv. Can.:
Quaternary stratigraphy of Old Crow Basin and Porcupine River Valleys, Yukon, 1968-.

1089. HUGHES, O.L., Geol. Surv. Can.:
Quaternary geology, Mayo-McQuesten, Yukon Territory, 1979-.

1090. JACKSON, L.E., Jr., Geol. Surv. Can.:
Quaternary geology and terrain inventory, Nahanni-Sheldon Lake – Finlayson Lake, Yukon and District of Mackenzie, 1980-.

See:

An occurrence of pre-McConnell nonglacial sediments, Selwyn Mountains, Northwest Territories; Geol. Surv. Can., Paper 85-1B, p. 169-175, 1985.

1091. JACOBS, J.D., SQUIRES, C.A., Univ. Windsor (Geography):
Holocene environmental change in southern Baffin Island, 1976–; M.A. thesis (Squires).

See:

Holocene environments of the Frobisher Bay area, Baffin Island; deglaciation, emergence and the sequence of vegetation and climate; Geographie physique et Quaternaire, vol. 39, no. 2, 1985.

Contemporary pollen deposition and the distribution of **B. glandulosa** around Frobisher Bay, Baffin Island: implications concerning the extent of low arctic tundra; Arctic and Alpine Research, vol. 17, no. 3, 1985.

1092. KARROW, P.F., BELKNAP, D.F., MORGAN, C., Univ. Waterloo (Earth Sciences), Univ. Maine, Florida State Mus.:
Aminochronology of marine terraces, Tampa Florida, and Pleistocene vertebrate assemblages, 1986–.

1093. KARROW, P.F., EASTON, J., Univ. Waterloo (Earth Sciences):
Buried valleys, Georgetown-Burlington, Ontario, 1984–; M.Sc. thesis (Easton).

Compilation of available borings, new boring with continuous sampling, and geophysics are being used to define and derive the stratigraphy of buried valley fills.

1094. KARROW, P.F., MILLER, B.B., WARNER, B.G., Univ. Waterloo (Earth Sciences), Kent State Univ.:
Great Lakes history, 1964–.

See:

Huron Basin glacial lakes: a review; Geol. Assoc. Can., Spec. Paper 30, p. 79-93, 1985.

Late Quaternary molluscan faunal changes in the Huron basin; ibid., p. 95-107, 1985.

1095. KARROW, P.F., PAIR, D., Univ. Waterloo (Earth Sciences):
Water level history, northern New York, U.S.A., 1978–; M.Sc. thesis (Pair).

1096. KARROW, P.F., WARNER, B.G., KAZMARSKA, I., Univ. Waterloo (Earth Sciences):
Interstadial environments, southern Ontario, 1980–.

1097. KASZYCKI, C.A., Geol. Surv. Can.:
Glaical erosion of the Canadian Shield, 1978–.

1098. KING, R.H., Univ. Western Ontario (Geography):
Holocene tephrochronology of the south-central Canadian Rockies, 1980–.

See:

Weathering of Holocene volcanic ashes in the southern Canadian Rockies; in: Rates of Chemical Weathering of Rocks and Minerals, S.M. Colman and D.P. Dethier eds. Academic Press, New York, p. 238-266, 1986.

The role of tephrostratigraphy in Holocene paleoenvironmental reconstructions in the south-central Canadian Rockies; Program with Abstracts and Field Guide, CANQUA Symp. Paleoenvironmental Reconstruction of the Late Wisconsin Deglaciaion and the Holocene, p. 34-35, 1985.

1099. KIRBY, F., Newfoundland Dept. Mines and Energy:
Detailed aggregate resource assessments – Insular Newfoundland, 1982–.

To locate, map and sample high quality aggregate resources in areas where conflicting land uses threaten to sterilize these valuable non-renewable resources. To date work has been concentrated in Municipal Planning areas and in a number of development areas.

1100. KLASSEN, R.A., Geol. Surv. Can.:
Surficial geology and Quaternary stratigraphy of north Baffin-Bylot Islands, District of Franklin, 1978–.

1101. KLASSEN, R.A., Geol. Surv. Can.:
Drift prospecting, east-central Labrador, 1982–.

See:

Ice flow trends and drift composition, Flowers River area, Labrador; Geol. Surv. Can., Paper 86-1A, p. 697-702, 1986.

Ice flow directions and drift composition, central Labrador; ibid., p. 713-717, 1986.

1102. KLASSEN, R.W., Geol. Surv. Can.:
Quaternary geology, southwestern Saskatchewan, 1983–.

1103. LAURIOL, B., Université d'Ottawa (Géographie):
Géomorphologie quaternaire de l'Ungava, Québec, 1977–.

See:

Dynamics of the Late Wisconsin ice sheet in the Ungava Peninsula, interpreted from geomorphological evidence; Arctic and Alpine Res., vol. 17, no. 3, p. 289-310, 1985.

L'objectif général est d'établir une chronologie des événements glaciaires survenus en Ungava au Pleistocène et à l'Holocène, à partir de l'analyse géomorphologique et des méthodes de datation absolue.

1104. MARTINI, I.P., Univ. Guelph (Land Resource Science):
Quaternary cold climate fluvial and coastal sediments, Ontario, 1980–.

See:

Morphology and recent sediments of the lower anastomosing reaches of Attawapiskat River, James Bay; Sedimentary Geol., vol. 37, p. 295-320, 1985.

1105. MICHEL, F.A., Carleton Univ. (Geology):
Nature and history of massie ground ice in Yukon, 1983–.

1106. MIHYCHUK, M.A., Newfoundland Dept. Mines and Energy:
Quaternary exploration and surficial mapping in the Bellburns (12I/5/6) area, Great Northern Peninsula, Newfoundland, 1985–86.

See:

Quaternary Mapping and Exploration in the Bellburns Map Sheet (12A/5 and 6) and Trapper Prospect Areas; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

An integrated Quaternary mapping and exploration program was conducted in an area of known economic mineral potential to aid in exploration. Evidence indicates at least two glacial events followed by marine incursions producing a complex stratigraphy.

1107. MUDIE, P.J., Geol. Surv. Can.:
Quantitative Quaternary paleoecology, Eastern Canada, 1982–.

See:

An automated microscope system for image analysis in palynology and micropaleontology; Geol. Surv. Can., Paper 86-1A, p. 107-112, 1986.

1108. PELLETIER, B.R., Geol. Surv. Can.:
Quaternary paleo-sealevel map of Canada, 1978–.

1109. PHILLIPS, B.A.M., Lakehead Univ. (Geography):
Lake Superior shoreline and water level history, and the relationship to activities of Palaeo Indian man, 1982–.

1110. PRONK, A.G., New Brunswick Forests, Mines, Energy (Mineral Res. Div.):
Regolith mapping and till geochemistry, New Brunswick, 1985–89; M.Sc. thesis.

See:

Quaternary geology map of the Tetagouche Lakes area (NTS 21 O/9); New Brunswick Forests, Mines, Energy, 1985.

To supply a base for geochemical exploration, forest managment and regional planning. Research into the vertical and grain size distribution of the metallic elements in shallow till samples. On schedule at one 1:50 000 NTS sheet/year.

1111. RICHARD, S.H., Geol. Surv. Can.:
Surficial geology, Tawatinawa area, Alberta, 1968–.

1112. RICHARD, S.H., Geol. Surv. Can.:
Surficial geology, Ottawa Valley lowlands, Ontario-Québec, 1974–.

See:

Temporal distribution and significance of Late Pleistocene fossils in the western Champlain Sea basin, Ontario and Quebec; Geol. Surv. Can., Paper 85-1B, p. 401-411, 1985.

1113. RICKETTS, M.J., ROGERS, J., Newfoundland Dept. Mines and Energy:
Detailed aggregate mapping related to concrete platform construction, 1985–86.

To locate and sample large deposits of sand and gravel required in construction of offshore concrete production platforms. Maps, sieve and petrographic analyses have been completed. A detailed report will begin March, 1986.

1114. ST-ONGE, D.A., Geol. Surv. Can.:
Surficial geology, north-central District of Mackenzie, 1983–.

1115. ST-ONGE, D.A., Geol. Surv. Can.:
Surficial geology inventory – area south of Dolphin and Union Strait, District of Mackenzie, 1984–.

1116. SCHWARCZ, H.P., KATZENBERG, A., CHISHOLM, B., NELSON, E., LOVELL, N., Univ. McMaster (Geology), Calgary (Archaeology), Simon Fraser (Archaeology), Cornell (Anthropology):
Paleodiet sutdies, 1981–; Ph.D. thesis (Chisholm).

See:

Stable isotopes in human skeletons of southern Ontario: reconstructing paleodiet; J. Archeol. Sci., vol. 12, p. 187-206, 1985.

Carbon isotopes in paleodiet: Lack of age or sex effect; Archaeometry, 1986.

Variation in ^{13}C, ^{15}N abundances in human bone collagen permists us to reconstruct variations in diet in time and space.

1117. SHARPE, D.R., Geol. Surv. Can.:
Quaternary geology, southwestern Victoria Island, District of Franklin, 1983–.

1118. SHETSEN, I., Alberta Research Council (Geol. Surv.):
Quaternary geology, southern Alberta, 1980–86.

Quternary geology map on a scale of 1:500 000 has been completed for the area south of 52°. Field stratigraphic study has been conducted in the area north of 52°.

1119. SHILTS, W.W., Geol. Surv. Can.:
Properties and provenance of glacial sediments, 1969–.

See:

Stratigraphy of placer gold deposits; overburden drilling in Chaudière Valley, Quebec; Geol. Surv. Can., Paper 86-1A, p. 703-712, 1986.

1120. SHILTS, W.W., Geol. Surv. Can.:
Quaternary geology inventory – southern Keewatin, 1973–.

See:

Glacial features of the west-central Canadian Shield; Geol. Surv. Can., Paper 85-1B, p. 375-381, 1985.

1121. SHILTS W.W., Geol. Surv. Can.:
Quaternary stratigraphy, Northern Ontario Lowlands, 1983-.

1122. SPARKES, B.G., Newfoundland Dept. Mines and Energy:
Quaternary mapping southern Newfoundland, 1985-.

See:

Surficial and glacial mapping – Peter Snout (11P/13) and King George IV Lake (12A/4) map areas, southern Newfoundland; Newfoundland Dept. Mines and Energy, Mineral Development Division, Report 86-1, 1986.

A till sampling program was completed on a 2 x 2 km grid spacing. Samples were collected from the C soil horizon from lodgement and meltout till facies. Pebble lithologies were determined and referenced to bedrock map units. These data will be used to determine till geology and to aid in the interpretation of ice flow directions and transport distances. Grain size analyses will be used to aid in the interpretation of the till geochemistry and to provide information on textural variations between till types and landforms.

1123. STALKER, A.MacS., Geol. Surv. Can.:
Quaternary of southern Alberta, 1965-.

1124. STEA, R.R., MYERS, R.A., Nova Scotia Dept. Mines and Energy:
Quaternary geology and till geochemistry northern mainland Nova Scotia, 1982-89.

See:

Quaternary geology and till geochemistry of western Cumberland County, Nova Scotia; Geol. Surv. Can., Paper 85-17, 1985.

To map the Quaternary deposits of northern Nova Scotia and provide data base on the geochemistry of till.

1125. TELLER, J.T., LANCASTER, N., RUTTER, N.W., WARD, J., Univ. Manitoba (Earth Sciences), Arizona State, Univ. Alberta (Geology), Namibia Geol. Surv.:
Cenozoic lacustrine deposits in the central Namib Desert, 1983-.

To identify, describe and interpret lacustrine sediments in the central Namib Desert, which is today hyperarid. The calcareous sediments range from Tertiary to late Pleistocene in age.

1126. TELLER, J.T., MAHNIC, P., LEMOINE, R., Univ. Manitoba (Earth Sciences):
History of the Nipigon basin link between east and west, 1983-.

See:

Lake Agassiz and its influence on the Great Lakes; Geol. Assoc. Can., Spec. Paper 30, p. 1-16, 1985.

Surging of the southwestern part of the Laurentide Ice Sheet; Boreas, vol. 14, p. 235-241, 1985.

History of sedimentation in the northwestern Lake Superior basin as related to Lake Agassiz overflow; CANQUA Symp., Lethbridge, Program with Abstrcts, p. 44, 1985.

To document the influence and chronology of Lake Agassiz overflow on the Lake Nipigon and northwestern Lake Superior basins by taking and evaluating cores and studying outcrops.

1127. VANDERVEER, D.G., Newfoundland Dept. Mines and Energy:
Detailed Quaternary mapping as an aid to mineral exploration, 1980-.

See:

Quaternary mapping/drift prospecting, Moran Heights, Labrador; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

Provides data on landforms and glaciogenetic deposits in areas of mineral exploration to define zones of dispersal to assist the industry in locating the bedrock source of mineralized boulders or geochemically enriched (mineralized) drift.

1128. VEILLETTE, J.J., Geol. Surv. Can.:
Géologie du Quaternaire, région de l'Outaouais supérieur Québec, 1977-.

1129. VEILLETTE, J.J., Geol. Surv. Can.:
Géologie du Quaternaire et géochimie des tills de la région Mont-Joli/La Rédemption, Québec, 1984-.

1130. VEILLETTE, J.J., Geol. Surv. Can.:
Echantillonnage des sédiments meubles, région de l'Ungava, Québec, 1985-.

1131. VINCENT, J.-S., Geol. Surv. Can.:
Surficial geology inventory, Banks Island, District of Franklin, 1974-.

1132. VINCENT, J.-S., Geol. Surv. Can.:
Surficial geology-terrain inventory, western Victoria Island, District of Franklin, 1981-.

1133. VINCENT, J.-S., Geol. Surv. Can.:
Quaternary stratigraphy of the Beaufort coast, Yukon and District of Mackenzie, 1983-.

1134. VINCENT, J.-S., Geol. Surv. Can.:
Surficial geology inventory-area of Anderson River map area, District of Mackenzie, 1984-.

1135. WATTS, S.H., Sir Sandford Fleming College:
Bedrock weathering processes and products beyond the Laurentide Ice Margin in the northern Yukon, 1986-.

See:

A scanning electron microscope study of bedrock microfractures in granites under High Arctic conditions; Earth Surface Processes and Landforms, vol. 10, p. 161-172, 1985.

Field studies have been completed at two localities including in the Old Crow Range and near Mount Sedgwick in the northern Yukon. A final report is in preparation.

REMOTE SENSING/TÉLÉDÉTECTION

1136. AMOS, C.L., Geol. Surv. Can.:
Landsat calibration for suspended sediment concentration in marine coastal environments, 1978-.

1137. BÉLANGER, J.R., Geol. Surv. Can.:
Remote sensing applied to Quaternary geology and mineral tracing, 1978-.

1138. BONN, F., DUBOIS, J.-M.M., GWYN, Q.H.J., Université de Sherbrooke (Géographie):
Développement de méthodologies d'interprétation quantitative des images de télédétection en géomorphologie continentale et littorale, 1980-85.

Voir:

Analyse de la mesure des concentrations de solides en suspension dans l'eau par télédétection aéroportée; Télédétection et gestion des ressources, Assoc. Qué. télé, vol. 5, p. 383-397, 1985.

1139. BONN, F., GWYN, Q.H.J., DUBOIS, J.-M.M., Université de Sherbrooke (Géographie):
Télédétection des dépôts meubles: île d'Anticosti et Cantons de l'Est, 1982-86.

Voir:

Classification multi-spectrale et apport de la bande TM 6 dans la distinction des dépôts meubles de l'île d'Anticosti, Québec; J. Can. Sci. Terre, vol. 22, p. 1139-1148, 1985.

Optimisation des images aéroportées et satellites pour les dépôts meubles et la géomorphologie.

1140. BONN, F., GWYN, Q.H.J., THOMSON, K., Université de Sherbrooke (Géographie):
Télédétection par radar en sciences de la terre, 1982-86.

Optimisation de l'utilisation des micro-ondes par l'élaboration de clefs d'interprétation.

1141. DUBOIS, J.-M.M., BONN, F., Université de Sherbrooke (Géographie):
Télédétection des terres humides, 1984-87.

Optimisation de l'interprétation analogique et numérique d'images de télédétection des zones de tourbières, marais, marécages avec les capteurs SPOT, TM et MSS et de la photographie aérienne.

1142. DUBOIS, J.-M.M., EL-SABH, M., BONN, F., Univeristé de Sherbrooke (Géographie):
Etude de la dynamique de l'estuaire et du golfe du Saint-Laurent par télédétection, 1982-86.

Voir:

Structures thermiques et variabilité du courant de surface dans l'estuaire et le golfe du Saint-Laurent à l'aide d'images du satellite NOAA-7; Télédétection et gestion des ressources, Assoc. Qué. télé, vol. 5, p. 435-443, 1985.

Structure thermique et variabilité du courant de surface de l'estuaire maritime du Saint-Laurent à l'aide d'images du satellite HCMM; J. Can. télé, vol. 11, p. 70-84, 1985.

Le repérage du système tourbillonnaire du Saint-Laurent; Geos, vol. 14, p. 17-19, 1985.

1143. DUBOIS, J.-M.M., OMMANNEY, S., Université de Sherbrooke (Géographie):
Télédétection de l'évolution des glaciers tempérés actuels et de neige, 1983-86.

See:

Photo-interpretation, digital mapping, and the evolution of glaciers in Glacier National Park, B.C.; Symp. Glacier Mapping and Surveying, Reykjavik, Aug. 1985.

Evolution of the Illecillewaet Glacier, Glacier National Park, B.C., using historical data, aerial photography and satellite image analysis; ibid., 1985.

Evolution des glaciers actuels et du couvert de neige par télé-interprétation.

1144. GIROUX, J., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Télédétection apliquée à la région de la Rivière George, Nouveau-Québec, 1983-87.

Identification des grandes lignes des contextes lithologiques et structuraux afin de faciliter la cartographie de reconnaissance.

1145. MEREDITH, T.C., BRACHER, G.A., McGill Univ. (Geography):
Terrain and physiogromoic cover types in Ungava, Quebec, 1984-.

See:

Landsat imagery and range evaluation for Ungava; McGill Subarctic Res. Paper No. 40, p. 33-47, 1985.

1146. RENCZ, A.N., Geol. Surv. Can.:
Geological evaluation and remote sensing (GEARS), 1984-.

1147. ROYER, A., Université de Sherbrooke (Géographie):
Correction atmosphériques des images satellites de télédétection, 1983-87.

Voir:

Calcul de la diffusion de la lumière par les aérosols; Dép. de géogr., Université de Sherbrooke, Bull. de recherche, no. 80, 63 p. 1985.

Evaluation and correction of viewing angle effects on satellite measurements of bidirectional reflectance; Phot. Eng. and Rem. Sens., vol. 52, 1985.

Preliminary results anthropogenic albedo changes over the past 15 years in eastern Canada; Congr. ISLSCP, Rome, 1985.

1148. SLANEY, V.R., Geol. Surv. Can.:
Remote sensing applications, 1981-.

1149. SPOONER, I., GORMAN, W.A., Queen's Univ. (Geological Sciences):
The recognition of concealed aggregate deposits using infrared photography and scanning, 1985-87; M.Sc. thesis (Spooner).

The area north of Kingston has esker, kame and possibly beach deposits located beneath a varied clay sequence of variable thickness. The object of this study is to determine what thickness of clay is required to completely mask the presence of aggregate. The Ontario Center for Remote Sensing is supplying both assistance and advice in this study.

1150. TANGUAY, M.G., GAGNIER, B.M., École Polytechnique (Génie minéral):
Applications des images Landsat et des images SAR en génie et en géologie, 1982-86; thèse de maîtrise (Gagnier).

Développer les méthodes d'utilisation et d'application des images Landsat et de radar SAR aux divers domaines en génie et en géologie.

1151. TANGUAY, M.G., SÉA, B., CARBONI, C., École Polytechnique (Génie minéral):
Analyses des linéaments d'Anticosti, Québec, 1983-87; thèse de maîtrise (Séa, Carboni).

Déterminer les structures favorables à la recherche des hydrocarbures par analyse des linéaments sur photos aériennes et corrélation avec les images Landsat.

ANCIENT SEDIMENTS/ SÉDIMENTS ANCIENS

1152. ASPLER, L., DONALDSON, J.A., Carleton Univ. (Geology):
Sedimentology, stratigraphy and structural geology of the Nonacho Basin, Northwest Territories, 1978-86; Ph.D. thesis (Aspler).

See:

The Nonacho Basin (Early Proterozoic), Northwest Territories, Canada: sedimentation and deformation in a strike-slip setting; Soc. Economic Pal. Mineral., Spec. Publ. 37, 1985.

1153. BANERJEE, I., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Mannville Group, southern Alberta, 1982-.

1154. BROOKFIELD, M., BRETT, C., Univ. Guelph (Land Resource Science), Univ. Rochester (Geology):
Paleoenvironments of the Middle Ordovician Trenton Limestones in Ontario, 1980-.

1155. BROOKFIELD, M., KUMAR, R., Univ. Guelph (Land Resource Science), Chandigarh, India:
Sedimentology and tectonic of the Lesser Himalaya.

1156. CHANDLER, F.W., Geol. Surv. Can.:
Redbed sequences in Canada, 1976-:

See:

Sedimentology and paleoclimatology of the Huronian (Early Aphebian) Lorrain and Gordon Lake formations and their bearing on models for sedimentary copper mineralization; Geol. Surv. Can., Paper 86-1A, p. 121-132, 1986.

1157. CHEEL, R.J., Brandon Univ. (Geology):
A detailed study of textural laminae in sands and sandstones, 1984-.

To document and interpret the textural characteristics of laminae formed under various hydrodynamic conditions. Work on hummocky cross-stratification is in progress. Studies of cross-stratification formed by the migration of 2-D and 3-D large ripples commences during the summer of 1986.

1158. COOK, D.G., Geol. Surv. Can.:
Comparative studies of structural prototypes and/or sedimentary environments, 1970-.

1159. CURRIE, R.L., Geol. Surv. Can.:
Stratigraphy and sedimentology of Silurian rocks of Gaspé, 1984-.

SEDIMENTOLOGY/SÉDIMENTOLOGIE

1160. DE KEMP, E.A., DONALDSON, J.A., Carleton Univ. (Geology):
Stromatolites and ortho quartzites in an Archean shoreline succession, northwestern Ontario, 1984-86; M.Sc. thesis (de Kemp).

Discovery of a new occurrence of Archean stromatolites and quartz aremitis.

1161. DONALDSON, J.A., KERANS, C., Carleton Univ. (Geology), Texas Bureau of Economic Geology:
Paleokarst and submarine cements in stromatolitic dolostones of the Dismal Lakes Group, Northwest Territories, 1979-86; Ph.D. thesis (Kerans).

1162. DONALDSON, J.A., MUSTARD, P., RAINBIRD, R., MICHEL, F.A., RUST, B.R., BURBIDGE, G., WILSON, B., WATKINSON, D.H., SMYCK, M., Carleton Univ. (Geology), Ottawa Univ. (Geology):
Sedimentary rocks and strata-bound mineralization in the Cobalt region of northeastern Ontario, 1983-86; M.Sc. theses (Mustard, Rainbird, Wilson, Smyck), Ph.D. thesis (Burbidge).

See:

Sedimentary rocks and strata-bound mineralization in the Cobalt region; Ontario Geol. Surv., Misc. Paper 127, p. 87-100, 1985.

1163. FORTIN, D., TASSÉ, N., Université Laval (Géologie et minéralogie), INRS-Géoressources:
Étude du contact Beekmantown-Chazy dans les Basses-Terres du Saint-Laurent, Québec, 1986-87; thèse de maîtrise (Fortin).

L'étude a pour objectif d'examiner les effets de la discordance ordovicienne sur le substratrum dolomitique, dans la perspective d'un développement éventuel de karst.

1164. FOSCOLOS, A.E., Geol. Surv. Can.:
Mass transfer to elements in clastic sequences, 1985-.

1165. GRAF, G.C., DIXON, O.A., Univ. Ottawa (Geology):
Carbonate buildups of the Upper Silurian Barlow Inlet Formation, Devon Island, Arctic Canada, 1984-87; M.Sc. thesis (Graf).

1166. HARRISON, R., Alberta Research Council (Geol. Surv.):
Sedimentology and stratigraphy of the bitumen-bearing Upper Devonian Grosmont Formation of northern Alberta, 1980-.

1167. HOPKINS, J.C., WOOD, J., Univ. Calgary (Geology and Geophysics):
Sedimentology of the Mannville Group (lower Cretaceous) of southeastern Alberta and northwestern Montana, 1981-88; Ph.D. thesis (Wood).

See:

Channel-fill deposits formed by aggradation in deeply scoured, superimposed distributaries of the Lower Kootenai Formation (Cretaceous); J. Sedimentary Petrol., vol. 55, p. 42-52, 1985.

A new phase of the project was started in 1986, this time with emphasis on sandstone body geometry within Cretaceous channel systems in southeastern Alberta. Geophysical attributes of the same sandstone bodies is a closely allied project under the direction of D.C. Lawton.

1168. JOHNSON, B., DONALDSON, J.A., Carleton Univ. (Geology):
Sedimentology of the Wilson Island Group, Northwest Territories, 1984-87; M.Sc. thesis (Johnson).

Field work completed. Final report in preparation.

1169. KING, A.F., Memorial Univ. (Earth Sciences):
Geology of St. John's and vicinity, Newfoundland, 1985-.

See:

Geology of the St. John's area, Newfoundland; Newfoundland Dept. Mines and Energy, Rept. 86-1, p. 209-218, 1986.

Mapping of the bedrock geology and surficial deposits of central St. John's Peninsula was carried out at 1:12 500 scale. The purpose of the present study is to document the distribution, origin, and tectonic development of the late Precambrian lithofacies, and to provide a data base for subsequent hydrogeological and geotechnical investigations.

1170. KOSTER, E.H., CURRIE, P.J., Alberta Research Council (Geol. Surv.), Tyrrell Mus. Paleontol.:
Sedimentological investigation of the Upper Cretaceous Judith River Formation at Dinosaur Provincial Park (a UNESCO World Heritage Site), Tp. 20-21, Rge. 10-14W4, Alberta, 1981-86.

1171. KRAMERS, J.W., Alberta Research Council (Geol. Surv.):
Sedimentology and oil sands resources of the Grand Rapids Formation, Wabasca Oil sand deposit, Alberta, 1973-86.

Continuing study of the sedimentology, facies relationships petrology/diagenesis and bitumen resources of the Grand Rapids Formation in northeastern Alberta (Tp. 69-90, Rge. 12W4-3W5).

1172. LONG, D.G.F., Laurentian Univ. (Geology):
Sedimentology of Precambrian and Phanerozoic clastic sequences, 1985-89.

See:

Early evolution of a lower Paleozoic passive margin, the Lower Cambrian history of the Franklinian sequence, northeast Ellesmere Island, Arctic Canada; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A35, 1985.

Sedimentology of the Late Ordovician Vaureal and Ellis Bay formations, Anticosti Island, Quebec; Can. Paleontol. Biostrat. Seminar, Quebec City, September 27-29, 1985.

Research into the stratigraphy and sedimentology of Proterozoic and Phanerozoic clastics to provide an understanding of the effects of biogenic and non-biogenic influences in terrestrial and marine settings.

1173. LOSERT, J., Alberta Research Council (Geol. Surv.):
Jurassic/Cretaceous stratigraphic relationships in west-central Alberta, 1984-85.

1174. MARTINI, I.P., Univ. Guelph (Land Resource Science):
Comparative analysis of cold-climate water laid sediments of Canada with Permian rocks of Gondwanaland, 1984-.

See:

Cold climate peat formation in Canada, and its relevance to Lower Permian coal measures of Australia; Earth Sci. Reviews, vol. 22, p. 107-140, 1985.

1175. MIALL, A.D., Univ. Toronto (Geology):
Analysis of fluvial depositional systems, 1965-.

See:

Architectural-element analysis: a new method of facies analysis applied to fluvial deposits; Earth Sci. Reviews, vol. 22, p. 261-308, 1985.

Work is currently focussed on a study of detailed facies architecture of well-exposed Jurassic units in the Colorado Plateau.

1176. MIALL, A.D., Univ. Toronto (Geology):
Glacial – marine facies models, 1982-85.

See:

Sedimentation on an Early Proterozoic continental margin under glacial influence: the Gowganda Formation (Huronian), Elliot Lake area, Ontario, Canada; Sedimentology, vol. 32, p. 763-788, 1985.

Models of glaciomarine sedimentation and their application to the interpretation of ancient glacial sequences; Palaeogeog. Palaeoclim., Paleoec., vol. 51, p. 15-84, 1985.

1177. MUIR, I.D., DIXON, O.A., Univ. Ottawa (Geology):
Facies analysis of the Middle Devonian Ramparts reef complex, Mackenzie Mountains, Northwest Territories, 1982-86; Ph.D. thesis (Muir).

See:

Devonian Hare Indian-Ramparts (Kee Scarp) evolution, Mackenzie Mountains and subsurface Norman Wells, N.W.T.: basin fill and platform reef development; S.E.P.M. core workshop No. 7, Denver, p. 311-342, 1985.

1178. NADON, G., Univ. Toronto (Geology):
Evolution of a clastic wedge: the Blood Reserve and St. Mary River formations of southwestern Alberta, 1985-89; Ph.D. thesis.

1179. POEY, J.-L., DIXON, O.A., Univ. Ottawa (Geology):
Carbonate facies of the Silurian shelf-to-basin transition, Baumann Fiord area, Ellesmere Island, Arctic Canada, 1981-86; M.Sc. thesis (Poey).

1180. ROTTENFUSSER, B.A., Alberta Research Council (Geol. Surv.):
Peace River oil sands study, Alberta, 1975-85.

1181. SCHUTZE, A.M., Alberta Research Council (Geol. Surv.):
Athabasca South – oil sands geology, 1984-87.

To complete a good stratigraphic, sedimentologic and hydrocarbon distribution study of the southern half of the Athabasca oil sands deposit.

1182. SONNENFELD, P., Univ. Windsor (Geology):
Evaporite formation.

1183. TASSÉ, N., SCHRIJVER, K., HÉROUX, Y., BERGERON, M., CHAGNON, A., INRS-Géoressources:
Métallogénie de la séquence carbonatée des Basses-Terres du Saint-Laurent, Québec, 1984-88.

Études pétrographiques, géochimiques, minéralogiques et isotopiques de la séquence carbonatée pour définir les attributs et les mécanismes de mise en place d'indices minéralisés des Bases-Terres.

1184. TASSÉ, N., FORTIN, D., INRS-Géoressources:
Origine de concrétions à septaria du Groupe de Mictaw, Gaspésie, Québec, 1986-87.

Étude géochimique et isotopique de concrétions à septaria pour caractériser les environnements de diagenèse précoce.

1185. VAN DE REEP, T.W., RENAUT, R.W., Univ. Saskatchewan (Geological Sciences):
Depositional environments and diagenesis of the Mississippian Midale Beds of the Tatagwa area, southeastern Saskatchewan, 1984-86; M.Sc. thesis (Van de Reep).

1186. VON BITTER, P.H., GAIT, R.I., Royal Ontario Mus. (Invert. Palaeontology, Mineralogy and Geology):
Calcite pseudomorphs from the Pleistocene and Holocene of Canada: possible geothermometers, 1976-86.

1187. WALKER, D., HARRISON, R., Alberta Research Council (Geol. Surv.):
Stratigraphy of northern Grosmont Formation, northeast Alberta, 1983-85.

1188. WIGHTMAN, D.M., Alberta Research Council (Geol. Surv.):
Cold Lake oil sands, Lower Cretaceous, Alberta, 1980-85.

To gain insight into the controls on oil saturation in the Lower Cretaceous Mannville Group by doing regional stratigraphy and detailed facies analysis on the sands.

1189. WOLF, R.R., DALRYMPLE, R.W., Queen's Univ. (Geological Sciences):
Sedimentation of the Cambro-Ordovician sandstones of Eastern Ontario, 1983-86; M.Sc. thesis (Wolf).

See:

Sedimentology of the Cambro-Ordovician sandstones of eastern Ontario; Ontario Geol. Surv., Misc. Paper 127, p. 112-118, 1985.

Eolian action and the distribution of Cambrian shales in North America; Geology, vol. 13, p. 607-610, 1985.

The Potsdam Group sandstones of eastern Ontario contain 3 terrestrial and 3 marine facies. Now-marine units consist of fluvial and/or estuarine(?) sandstones and conglomerates and giant aeolian crossbeds. Tidally-influenced sandstones characterize the marine deposits of the Ottawa Valley, whereas storm-wave dominated sediment occur west of the Frontenac Axis which was high during Potsdam deposition.

1190. WOOD, J., Ontario Geol. Surv.:
Miscellaneous studies of ancient sedimentary environments.

See:

Ancient quartzites and carbonates in northwestern Ontario evidence for early (Archean) crustal stability; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophys. Union, Program with Abstracts, vol. 11, p. 146, 1986.

Studies of Archean sedimentology – North Spirit Lake and Rainy Lake; Proterozoic sedimentology of Cobalt Embayment.

RECENT AND UNCONSOLIDATED SEDIMENTS/SÉDIMENTS RÉCENTS ET NON CONSOLIDÉS

1191. ADSHEAD, J.D., Geol. Surv. Can.:
Geological characterization of Arctic lakes: sediment properties and sedimentary processes, 1977-.

1192. AMOS, C.L., Geol. Surv. Can.:
Sediment dynamics at the head of the Bay of Fundy, 1978-.

1193. AMOS, C.L., Geol. Surv. Can.:
Stability and transport of sediments on continental shelves, 1980-.

1194. BORNHOLD, B.D., Geol. Surv. Can.:
Marine surficial geology and sedimentation, British Columbia, 1975-.

1195. DALRYMPLE, R.W., ZAITLIN, B.A., Queen's Univ. (Geological Science):
Sedimentology of high energy, macrotidal estuarine systems: The Cobequid Bay – Salmon River Estuary Complex, Bay of Fundy, Nova Scotia, Canada; 1983-86; Ph.D. thesis (Zaitlin).

See:

Sedimentation in the macrotidal Cobequid Bay – Salmon River Estuary; Field Guidebook, Trip B, Symp. Arctic Land-Sea Interaction, Halifax, 1985.

Depositional patterns and stratigraphic sequences from the inner part of a sand-dominated macrotidal estuary, Cobequid Bay – Salmon River Estuary, Bay of Fundy, Canada; in International Assoc. Sedimentologists Symp. on Modern and Ancient Clastic Tidal Deposits; p. 169-172, Utrecht Netherlands, 1985.

A comparative study of sand vs. mud dominated macrotidal estuaries at the head of the Bay of Fundy in order to develop a set of diagnostic criteria in association with a morphological and vertical facies model which will allow for better interpretation of other similar modern and ancient depositional systems.

1196. FORBES, D.L., Geol. Surv. Can.:
Beaufort Sea coast, 1983-.

1197. GREENWOOD, B., Univ. Toronto (Geography, Geology):
Coastal Facies Models, 1975-.

See:

Vertical sequence and lateral transitions in the facies of a barred nearshore environment; J. Sedimentary Petrol., vol. 55, p. 366-375, 1985.

Detailed coring of contemporary sediment sequences across the coastal boundary layer is being undertaken to improve the existing

qualitative models for this environment. Coupled with detailed measurements of the local hydrodynamics and direct comparison with ancient (early Holocene) sedimentary analogues it is hoped that more quantitative models of value for paleoenvironmental reconstruction will be developed.

1198. GREENWOOD, B., DINGLER, J.R., SHERMAN, D.J., Univ. Toronto (Geography, Geology):
Bedform dynamics and bedding genesis under oscillatory and combined flows, 1982-.

See:

Monitoring bedforms under waves using high resolution remote tracking sonars (HRRTS); Proc. Canadian Coastal Conf., St. John's, p. 143-158, 1985.

Relationships between near-bed flows, bedforms and primary sedimentary structures in the wave-dominated nearshore zone are being sought using prototype scale experiments. Near-bed velocities are recorded using electromagnetic flowmeters and box cores reveal contemporary preservation of structures. Bedform dynamics are monitored visually and with a newly developed High Resolution Remote Tracking Sonar (HRRTS).

1199. HOOGENDOORN, E., DALRYMPLE, R.W. Queen's Univ. (Geological Sciences):
Sedimentology and dynamics of shoreface-connected ridges, Sable Island Bank, Nova Scotia, 1982-87; Ph.D. thesis (Hoogendoorn).

See:

Characteristics of shoreface-connected sand ridges, Sable Island Bank, Nova Scotia; Can. Soc. Petrol. Geol., Symp. Sedimentology of Shelf Sands and Sandstones, Abstract, p. 44, 1985.

Focuses on understanding the sedimentology and dynamics of shoreface-connected ridges on storm-dominated shelves – to develop a model that integrates aspects of sedimentology and oceanography to enable the prediction of ridges evolution in the modern environment as well as recognize ridge environments within the geologic column.

1200. HOPKINS, J.C., RIDLEY, S., Univ. Calgary (Geology and Geophysics):
Distribution and diagenesis of Pleistocene and Recent carbonate sediments, Turks and Caicos islands, British West Indes, 1983 ; M.Sc. thesis (Ridley).

Map of surficial sediment distribution over Caicos Bank completed in 1985. Current research directed towards understanding porosity modifications in bedrock beneath evaporite salinas, and the dynamics of accumulation of grainstone shoals in the bank interior.

1201. JANSA, L.F., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin, 1971-.

1202. LEGRESLEY, E.M., DALRYMPLE, R.W., Queen's Univ. (Geological Sciences):
Slope sedimentation on storm dominated shelves, Grand Banks of Newfoundland, Eastern Caada, 1986-88; M.Sc. thesis (LeGresley).

To document the processes of sedimentation resulting from storm action as sediment spills over from bank tops onto the slopes. Is turbidity flow or geostrophic flow the dominant mechanism? Access to existing cores and ship time have been arranged with the B.I.O.

1203. LUTERNAUER, J.L., Geol. Surv. Can.:
Fraser Delta sedimentation, British Columbia, 1974-.

1204. LUTERNAUER, J.L., Geol. Surv. Can.:
Marine delta sedimentation, British Columbia, 1979-.

See:

Sediment transport during the 1985 freshet in the outer main channel of the Fraser River estuary, British Columbia; Geol. Surv. Can., Paper 86-1A, p. 565-570, 1986.

1205. MACLEAN, B., Geol. Surv. Can.:
Near-surface geology of the Arctic Island channels, 1982-.

See:

Marine geological program in the Byam Martin Channel-Lougheed Island region, District of Franklin; Geol. Surv. Can., Paper 86-1A, p. 769-774, 1986.

1206. MCLAREN, P., Geol. Surv. Can.:
Coastal geology and processes of British Columbia, 1978-.

1207. MUDIE, P.J., Geol. Surv. Can.:
Ice Island sampling and investigation of sediments (ISIS), 1984-.

See:

A sea-level curve for the Canadian Beaufort Shelf; Can. J. Earth Sci., vol. 22, no. 10, p. 1383-1393, 1985.

1208. RASHID, M.A., Geol. Surv. Can.:
Geochemical transformations and reactions of organic compounds in recent marine sediments, 1975-.

1209. RENAUT, R.W., GONZALES, A., LONG, P.R., Univ. Saskatchewan (Geological Sciences):
Sedimentology and geochemistry of the lakes of the southern Fraser Plateau region, Interior British Columbia, 1984-; M.Sc. thesis (Gonzales).

A study of recent sedimentation and the hydrochemical evolution of several fresh and saline (Mg-Na-SO_4 and Na-CO_3Cl brines) lakes. The aims are to understand processes causing such diverse chemical compositions within the region, to study modern sedimentary processes (including roles played by organisms), and by core analysis, to document Holocene environmental changes. Detailed studies in progress at Kelly, Clinton and Last Chance lakes.

1210. RENAUT, R.W., LONG, P.R., Univ. Saskatchewan (Geological Sciences):
Sedimentology, petrology and geochemistry of western Canadian travertine deposits, 1984-.

Detailed study of sedimentology of various spring and fluvial travertines from British Columbia. Aims: (i) Describe lithological types and their relationship to depositional environment; (ii) Examine petrography and diagenesis, and role played by microorganisms in precipitation; (iii) Assess potential for using travertines for paleoenvironmental analysis. Work in progress on post-glacial spring travertines, near Clinton, British Columbia.

1211. RENAUT, R.W., OWEN, R.B., Univ. Saskatchewan (Geological Sciences), Univ. Malawi (Geography and Geology):
Sedimentological and mineralogical studies of Rift Valley sediments from Kenya, 1976-.

See;

Mineral precipitation and diagenesis in the sediments of the Lake Bogoria basin, Kenya Rift Valley; in Sedimentation in the African Rifts, eds. L.E. Frostick, R.W. Renaut, I. Reid, J.J. Tiercelin, Blackwells, Oxford, p. 153-169, 1986.

Continuing studies of lacustrine and hot spring sediments from several Rift Valley lake basins (Bogoria, Baringo, Turkana) emphasizing diagenesis and palaeoclimatic interpretation.

1212. SCHAFER, C.T., Geol. Surv. Can.:
The Recent paleoclimatic and paleoecologic records in fjord sediments, 1980-.

1213. SYVITSKI, J.P.M., Geol. Surv. Can.:
The physical behaviour of suspended particulate matter (spm) in natural aqueous environments, 1981-.

1214. SYVITSKI, J.P.M., Geol. Surv. Can.:
Sedimentology of fjords, 1981-.

1215. TAYLOR, R.B., Geol. Surv. Can.:
Coastal morphology and sediment dynamics, southeast and east Cape Breton Island, Nova Scotia, 1980-.

1216. YOUNG, H.R., NELSON, C.S., Brandon Univ. (Geology), Univ. Waikato (Earth Sciences), New Zealand:
Rapid biodegradation of temperate latitude skeletal fragments on Scott Shelf, northwestern Vancouver Island, British Columbia, 1982-86.

SOIL SCIENCE/PÉDOLOGIE

1217. ELRICK, D.E., REYNOLDS, W.P., CAMPBELL, A., Univ. Guelph (Land Resource Science):
Water and solute transport in soils; Ph.D. thesis (Reynolds), M.Sc. thesis (Campbell).

A comparison of three field methods for measuring saturated hydraulic conductivity; Can. J. Soil Sci., vol. 65; p. 563-573, 1985.

A method for simultaneous in-situ measurement in the vadose zone of field-saturated hydraulic conductivity, sorptivity and the conductivity pressure head relationship; Ground Water Monitoring Review 6, p. 84-95, 1986.

Measurement of field-saturated hydraulic conductivity, sorptivity and the conductivity-pressure head relationship using the "Guelph Permeameter"; Proc. National Water Well Association Conf. Characterization and Monitoring of the Vadose (Unsaturated) Zone, Denver, Colorado, November, 1985.

In-Situ measurement of field-saturated hydraulic conductivity, sorptivity and the α-parameter using the Guelph Permeameter; Soil Sci., vol. 140, p. 292-302, 1985.

The constant head well permeameter: Effect of unsaturated flow; Soil Sci., vol. 139, p. 172-180, 1985.

1218. GROENEVELT, P.H., El-ASSWAD, R.M., Univ. Guelph (Land Resource Science):
Soil surface modification, 1984-87.

See:

Hydrophysical modification of a sandy soil and its effect on evaporation; Trans. Amer. Soc. Agricultural Engineers, vol. 28, no. 6, p. 1927-1932, 1985.

1219. KING, R.H., KELLY, P., Univ. Western Ontario (Geography):
Soil variability in a Holocene chronosequence, 1985-87; M.Sc. thesis (Kelly).

In the coastal lowlands adjacent to Truelove Inlet, northeastern Devon Island, NWT soil development has occurred on a sequence of 17 raised beaches ranging in age from the present to approximately 9 500 RCYBP. The soils, comprised of Static Cryosols, constitute a chronosequence and provide an excellent opportunity to examine the variability of soil physical and chemical properties within this Great Group as they have progressively developed. Two major questions are being addressed: (1) what are the major soil forming processes operating on the raised beaches? (2) to what extent does the inherent variability of the parent material mask changes due to soil formation? On each beach 10 soil pedons have been randomly selected and samples collected at three standard depth intervals. Samples are being analyzed for Total Organic Carbon, Total Nitrogen, pH, $CaCO_3$ equivalent, dithionite and pyrophosphate-extractable Fe, Al, and Mn, Cation Exchange Capacity and exchangeable cations, and percentages of sand, silt and clay. The age of the individual raised beaches has been determined using the present elevation of the beach and a postglacial emergence curve for the Truelove Lowlands. Analytical results will be subjected to an analysis of variance using linear models employing random, fixed, and nested effects to determine variances attributable to differences in both the age of the sites and in depth, together with variances on individual beaches and parent materials. Any unexplained variance would be attributable to variation resulting from minor differences in sampling and analytical techniques.

1220. KING, R.H., MORRISON, L.J., Univ. Western Ontario (Geography):
Nature and genesis of Chromic Luvisols, southwestern Cyprus, 1984-86; M.Sc. thesis (Morrison).

The combination of an intense Mediterranean climate and a typical garique vegetation in southwestern Cyprus, has favoured the development of soils whose properties strongly reflect the physical, chemical and mineralogical properties of the parent materials. Of particular interest pedologically are the red soils, or Chromic Luvisols which are commonly found developed on the crystalline limestones of the Lefkara and Pakhna Formations. These soils are generally considered to have formed as a consequence of limestone dissolution in situ, but their presence on the Quaternary Fanglomerates, composed of well rounded, cobble-sized clasts of variable lithology derived from the Troodos Massif, suggests a more complex origin. Six representative pedons were sampled; three on the Fanglomerates and three formed on limestones of the Lefkara and Pakhna Formations. Detailed morphological descriptions were obtained in the field and both bulk and micromorphological samples collected. Physical, chemical, mineralogical and micromorphological analyses are presently underway. Generally, the soils are weakly calcareous (<10% $CaCO_3$), with a pH of c. 6.5-7.5 and a moderately high CEC (=35 m eg/100 g) saturated with Ca^{2+}. The soils are rich in clay-sized particles with an assemblage of hydrous micas, smectites, vermiculites and kaolinites. Smectites within the fine clay fraction (<0.2 μm) have accumulated by translocation following decarbonation to form an argillic (Bt) horizon. Reddish color of the Bt is correlated with variations in the content of iron oxyhdroxides. Evaluation of mineralogical trends during pedogenesis is complicated by the effects of pedotranslocation, however, the relative abundance of smectites and kaolinite in the soils and their deficiency in the underlaying deposits suggest either clay neoformation or an extraneous source for the surficial deposits due, perhaps, to long distance eolian transportation.

1221. NICHOLAICHUK, W., SMITH, R., Environment Canada (National Hydrology Res. Instit.):
Contribution of sloughs and potholes to groundwater recharge and salinization, 1985-.

To determine the contribution of prairie sloughs, potholes to groundwater recharge and salinization.

1222. NICHOLAICHUK, W., SMITH, R., Environment Canada (National Hydrology Res. Instit.):
Effects of agricultural snow management practices on surface and groundwater supplies, 1985-.

To determine the effect of snow management practices on surface runoff, flooding, drought proofing, groundwater recharge, salinization and water quality.

1223. PROTZ, R., FISCHER, J., Univ. Guelph (Land Resource Science):
Evaluation of the Airborne Multispectral Electro-Optical Imaging Scanner II (MEIS-II) and Landsat Thematic Mapper Data for detailed soil surveys, 1984-85.

1224. PROTZ, R., MCKEAGUE, J.A., TERASMAE, J., Univ. Guelph (Land Resource Science), Brock Univ. (Geological Sciences):
Rate of Pedzolic soil formation near southern James Bay, Ontario, 1984-87.

See:

The influence of texture on clay weathering and soil formation in mid-Northern Ontario; Applied Clay Sci., vol. 13, p. 43-55, 1985.

1225. PROTZ, R., SHIPITALO, M.J., Univ. Guelph (Land Resource Science):
Soil faunal influence on soil structure; Ph.D. thesis (Shipitalo).

1226. RUTHERFORD, G.K., BUSTOS, L., Queen's Univ. (Geography):
Pedogenesis of soils formed on basic igneous rocks in Canada, 1984-.

Developed a side interest on paleosols formed from basalt in Canada.

PRECAMBRIAN/PRÉCAMBRIEN

1227. AITKEN, J.D., Geol. Surv. Can.:
Helikian and Hadrynian stratigraphy Eastern Cordillera and Interior Platform, 1973-.

1228. CHANDLER, F.W., Geol. Surv. Can.:
Geology of the Helikian sediments and adjacent gneisses, Fury and Hecla Strait area, District of Franklin, 1979-.

1229. COOK, D.G., Geol. Surv. Can.:
Stratigraphy and structure of northern Franklin Mountains and adjacent plains, District of Mackenzie, 1985-.

1230. EASTON, R.M., Ontario Geol. Surv.:
Paleoenvironment of the Apsley Formation, Grenville Structural Province, Ontario, 1986.

To resolve the origin of the Apsley Formation (volcanic versus sedimentary), to resolve the stratigraphic position of the Apsley Formation (upper Mayo Group or lowermost Grenville Supergroup), and to evaluate the mineral potential of the Formation in light of these studies. Emphasis will be placed on stratigraphic and facies mapping within the formation.

1231. EISBACHER, G.H., Geol. Surv. Can.:
Stratigraphy, sedimentation, structure and tectonic setting of the Windermere Supergroup, 1979-.

STRATIGRAPHY/STRATIGRAPHIE

1232. FROESE, E., Geol. Surv. Can.:
Regional correlations, gold-bearing volcanic belts, Flin-Flon-Southend-La Ronge, Saskatchewan, 1985-.

1233. HELMSTAEDT, H., BAILEY, G., PADGHAM, W.A., BROPHY, J.A., Queen's Univ. (Geological Sciences), Indian Affairs and Northern Development (NAP) Canada:
Yellowknife volcanic belt studies, 1975-.

See:

Observations and speculations on supracrustal successions in the Slave Structural Province; Geol. Assoc. Can., Sp. Paper 28, 1985.

1234. HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Foxe Fold belt (East half), Baffin Island, District of Franklin, 1979-.

1235. HOFFMAN, P.F., Geol. Surv. Can.:
Hepburn batholith, Hepburn Lake map area, District of Mackenzie, 1977-.

1236. JACKSON, G.D., Geol. Surv. Can.:
Operation Borden, District of Franklin, 1977-.

See:

Notes on the Proterozoic Thule Group, northern Baffin Bay; Geol. Surv. Can., Paper 86-1A, p. 541-532, 1986.

1237. JAMES, R.S., BEWSWICK, A.E., BRONS, D.J., Laurentian Univ. (Geology):
Stratigraphy – metamorphism of Archean mafic volcanic rocks near Arsenic Lake, Temagami, Ontario, 1984-; M.Sc. thesis (Brons).

See:

Stratigraphy and metamorphism of Archean mafic volcanic rocks near Arsenic Lake, Temagami, Ontario; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 48, 1986.

1238. JAMES, R.S., BESWICK, A.E., JOHNSTON, M.M., Laurentian Univ. (Geology):
A stratigraphic and geochemical study of a portion of the Temagami Greenstone Belt, northeastern Ontario, 1984-; M.Sc. thesis (Johnson).

See:

Stratigraphic and geochemical study of a portion of the Temagami Greenstone Belt, northeastern Ontario; Geol. Assoc. Can. – Mineral. Assoc. Can. – Can. Geophysical Union, Program with Abstracts, vol. 11, p. 86, 1986.

1239. SIMARD, A., Université de Montréal (Géologie):
Stratigraphie et volcanisme dans la partie orientale de la bande volcano-sédimentaire Frotet-Evans, Québec, 1978-86; thèse de doctorat.

Voir:

Evolution du volcanisme archéen dans la région du lac Troilus; Ministère de l'Énergie et des Ressources du Québec, ET 83-18, 1985.

1240. STOTT, G.M., Ontario Geol. Surv.:
Archean stratigraphy and structure in the central Uchi Subprovince, Ontario, 1985-87.

See:

Regional stratigraphy and structure at the Lake St. Joseph area, central Uchi Subprovince; Ontario Geol. Surv., Misc. Paper 126, p. 17-22, 1985.

To define the regional stratigraphic/structural framework of the central Uchi Subprovince and the tectonic history in conjunction with a geochronology program (Royal Ontario Museum).

PALEOZOIC/PALÉOZOÏQUE

1241. AITKEN, J.D., Geol. Surv. Can.:
Lower Paleozoic stratigraphy, southern Rocky Mountains, Alberta and British Columbia, 1972-.

1242. BÉLAND, J., MALO, M., Université de Montréal (Géologie):
Stratigraphie et structure de l'Anticlinorium d'Aroostook-Perce, Gaspesie, Quebec, 1981-86; thèse de doctorat (Malo).

Elucidation d'une stratigraphie valable pour l'ensemble de l'anticlinorium (segment gaspésien) et modèle de tectonique coulissante expliquant l'ensemble de la structure et les particularités locales.

1243. BÉLAND, J., TRZCIENSKI, W.E., Jr., MARQUIS, R., Université de Montréal (Géologie):
Stratigraphie, structure et métamorphisme de l'Anticlinorium de Sutton, Estrie, Québec, 1984-87; thèse de doctorat (Marquis).

Une corrélation aux unités du Groupe d'Oak Hill (Cambrien) a été définie et un relevé systématique des éléments structuraux a permis de préciser l'évolution tectonique et le métamorphisme associé. La relation de l'anticlinorium aux terrains adjacents de part et d'autre reste toutefois à éclaircir.

1244. BERGERON, M., MAMET, B., Université de Montréal (Géologie):
Stratigraphie et microfaciès carbonatés de la Formation Mount Head, Alberta, 1984-86; thèse de maîtrise (Bergeron).

Rôle des Algues dans la sédimentation des carbonates. Stratigraphie à partir des Petits Foraminifères. Relations avec la macrofaune.

1245. BOEHNER, R., RYAN, R., CARTER, D., Nova Scotia Dept. Mines and Energy:
Carboniferous Basins studies: Cumberland Basin project Canada, Nova Scotia Mineral Development Agreement, 1985-89.

See:

Geological map of the Sydney Basin, Cape Breton, Nova Scotia 1:50 000; Nova Scotia Dept. Mines and Energy Map 86-1, 1986.

1246. BOLTON, T.E., Geol. Surv. Can.:
Silurian-Ordovician macrobiostratigraphy of Anticosti Island, Quebec, 1974-.

1247. BOURQUE, P-A., BERNARD, D., GOSSELIN, C., LAVOIE, D., MALO, M., ST-JULIEN, P., Université Laval (Géologie), Ministère de l'Énergie et des Ressources du Québec:
Synthèse stratigraphique et structurale du bassin silurien de la région de Gaspésie-Témiscouata, Québec, 1985-88.

Voir:

Synthèse stratigraphique et paléogéographique du bassin silurien de Gaspésie – Matapédia – Témiscouata; MERQ, MB 86-01, 1986.

Reconstitution paléogéographique des Groupes de Chaleurs, Matapédia et Honorat. Projet de trois ans, dont la première phase de terrain (Gaspésie est et centrale) est completée, et le rapport préliminaire rendu disponible au publique.

1248. CHRISTIE, R.L., Geol. Surv. Can.:
Geological reconnaissance, southeastern margin of Franklinian geosyncline, 1980-.

1249. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology and mineral deposits in the Mount Attwood-Phoenix area, Greenwood, British Columbia, 1984-85.

See:

Geology of the Mount Attwood-Phoenix area, Greenwood, British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Prel. Map No. 59, 1985.

Twenty-two geological units are distinguished in the Mount Attwood-Phoenix area. These include a wide ranging variety of Paleozoic to Tertiary beds that reflect multiple episodes of deformation and igneous intrusion.

1250. DI VERGILIO, M., LESPÉRANCE, P.J., Université de Montréal (Géologie):
Etude détaillée de la biostratigraphie et de l'évolution des communautés de macrofossiles de la formation d'Ellis Bay de l'Ile d'Anticosti, Québec, 1986-89; thèse de doctorat (Di Vergilio).

Etablir une biostratigraphie de la formation d'Ellis Bay en utilisant les macrofossiles qui y sont présents. Etudier l'évolution des communautés de fossiles macroscopiques en fonction des facies et de la stratigraphie. Préciser la limite Ordovicien – Silurien. Deux étés sur le terrain ont été faits (Etés 1982 et 1983).

1251. FRITZ, W.H., Geol. Surv. Can.:
Cambrian biostratigraphy of the Canadian Cordillera, 1965-.

See:

The basal contact of the Road River Group – a proposal for its location in the type area and in other selected areas in the Northern Canadian Cordillera; Geol. Surv. Can., Paper 85-1B, p. 202-215, 1985.

Small shelly fossils and trace fossils near the Precambrian-Cambrian boundary in the Yukon Territory; Lethaia, vol. 18. p. 233-256, 1985.

1252. GELDSETZER, H.H.J., Geol. Surv. Can.:
Middle and Upper Devonian rocks in east-central British Columbia and west-central Alberta, 1979-.

1253. HIGGINS, A.C., Geol. Surv. Can.:
Paleozoic biostratigraphy and biofacies studies, Arctic Islands, District of Franklin, 1984-.

1254. HOWIE, R.D., Geol. Surv. Can.:
Compilation of geoscientific data in the Upper Paleozoic basins of southeastern Canada, 1971-.

1255. KNIGHT, I., Newfoundland Dept. Mines and Energy:
Lower Ordovician authochthonous and parautochthonous rocks of the Great Northern Peninsula, western Newfoundland, 1976-86.

See:

Ordovician sedimentary strata of the Pistolet Bay and Hare Bay area; Newfoundland Dept. Mines and Energy, Report 86-1, 1986.

1256. LANE, D.M., Saskatchewan Geol. Surv.:
Geological cross section series east-west control section, Miss-E-85-1, Saskatchewan, 1985.

This east-west section extends from 16-36-1-18-W2 to 16-29-1-30-W1, a distance of 209 km. Logs from 12 wells are used in this section.

1257. LESPÉRANCE, P.J., SHEEHAN, P.M., Université de Montréal (Géologie), Milwauke Public Mus.:
Biostratigraphie de l'Ashgillien de Belgique (Ordovicien Supérieur), 1974-86.

1258. MAMET, B., CLOUGH, J., Université de Montréal (Géologie), Alaska Surv.:
Corrélations du Groupe de Lisburne, Sadlerochit Mountains, Alaska, 1985-87.

Stratigraphie sur microfaciès des relations latérales des formations Alapha et Wahoo.

1259. MAMET, B., TAILLEUR, I., Université de Montréal (Géologie), USGS:
Stratigraphie du Carbonifère et du Dévonien final, DeLong Mountains, Alaska, 1982-.

Relations stratigraphiques de cinq nappes paléozoiques des Brooks Range. Reconstitution du bassin avant déformation.

1260. MAYR, U., Geol. Surv. Can.:
Paleozoic stratigraphy of central and southern Ellesmere Island and northern Devon Island, District of Franklin, 1981-.

1261. MAYR, U., Geol. Surv. Can.:
Investigation of stratigraphy and tectonic development of lower Paleozoic Platform-Miogeocline margin zone, District of Franklin, 1985-.

1262. MEIJER-DREES, N.C., Geol. Surv. Can.:
Middle and Upper Devonian rocks in the subsurface of west-central Alberta, 1981-.

1263. MORROW, D.W., Geol. Surv. Can.:
Stratigraphy, sedimentology and diagenesis of Lower Paleozoic rocks in the northern Yukon Territory and in the region of the Mackenzie Mountains, Yukon Territory and Northwest Territories, 1984-.

See:

A shelf-to-basin transition in the Devonian Ogilvie Formation, Yukon Territory; Geol. Surv. Can., Paper 86-1A, p. 603-608, 1986.

1264. MORROW, D.W., Geol. Surv. Can.:
Lower Paleozoic stratigraphy and facies relationships in Wernecke, Ogilvie and Mackenzie Mountains, Yukon, 1985-.

1265. MOSSOP, G.D., Alberta Geol. Surv.:
Geological Atlas of the Western Canada Sedimentary Basin, 1985-91.

Phase I of the project (06/85 to 11/86) involves project design and identification of funding/manpower resources. Phase II (12/86 to 03/91) encompasses compilation and publication of a new geological atlas of the Western Canada Sedimentary Basin.

1266. NASSICHUK, W.W., Geol. Surv. Can.:
Stratigraphy and paleontology of Upper Paleozoic rocks on parts of Ellesmere, Melville and Axel Heiberg Islands, District of Franklin, 1968-.

1267. NASSICHUK, W.W., Geol. Surv. Can.:
Upper Paleozoic stratigraphy, Melville Island, District of Franklin, 1984-.

1268. NORFORD, B.S., Geol. Surv. Can.:
Ordovician and Silurian biostratigraphy of British Columbia, Alberta, Manitoba, Yukon, Mackenzie and Franklin, 1961-.

See:

Early Silurian age of rocks hosting lead-zinc mineralization at Howards Pass, Yukon Territory and District of Mackenzie; local biostratigraphy of Road River Formation and Earn Group; Geol. Surv. Can., Paper 83-18, 1985.

1269. NORRIS, A.W., Geol. Surv. Can.:
Devonian biostratigraphy of the northern Yukon Territory and adjacent District of Mackenzie and Alberta, 1970-.

1270. PEDDER, A.E.H., Geol. Surv. Can.:
Upper Silurian and Devonian biostratigraphy western and northern Canada, 1968-.

See:

Lochkovian (Early Devonian) rugose corals from Prince of Wales and Baillie Hamilton islands, Canadian Arctic Archipelago; Geol. Surv. Can., Paper 85-1B, p. 285-301, 1985.

The Devonian rugose coral genera **Haplothecia, Kuangxiastraea** and **Scruttonia;** Geol. Surv. Can., Paper 86-1A, p. 649-661, 1986.

1271. RICHARDS, B.C., Geol. Surv. Can.:
Carboniferous stratigraphy and sedimentology of northeastern British Columbia and northwestern Alberta, 1981-.

See:

Lower Carboniferous bithostratigraphy and carbonate facies, upper Banff Formation and Rundle Group, east-central British Columbia; Geol. Surv. Can., Paper 86-1A, p. 627-644, 1986.

1272. SANFORD, B.V., Geol. Surv. Can.:
Lower Paleozoic geology of Eastern Canada, 1975-.

See:

Plate tectonics – a possible controlling mechanism in the development of hydrocarbon traps in southwestern Ontario; Bull. Can. Petrol. Geol., vol. 33, no. 1, p. 52-71, 1985.

1273. STRUIK, L.C., Geol. Surv. Can.:
Stratigraphy and tectonics of the western margin of the southern Ominica Belt, British Columbia, 1982-.

See:

A regional east-dipping thrust places Hadrynian onto probable Paleozoic rocks in Cariboo Mountains, British Columbia; Geol. Surv. Can., Paper 86-1A, p. 589-594, 1986.

1274. TELFORD, P.G., JOHNSON, M.D., Ontario Geol. Surv.:
Paleozoic litho- and biostratigraphy of southern Ontario.

1275. THOMPSON, R.I., Geol. Surv. Can.:
Structure and stratigraphy of Paleozoic and lower Mesozoic rocks in Halfway River map-area, northeastern British Columbia, 1975-.

1276. VALIQUETTE, G., BELLEHUMEUR, C., IREM, Ministère de l'Énergie et des Ressources du Québec:
Corrélation des bentonites de la Formation de Shiphead, Québec, 1985-88; thèse de maîtrise (Bellehumeur).

Tentative de caractériser et de corréler les différents niveaux de bentonites dans la Formation de Shiphead et les formations associées. Echantillonage de pluseurs soupes et carottes completé. Résultats attendus. Sera absorbé dans le projet de la Lithogéochimie des Calcaires Supérieurs de Gaspé our 1986-87.

1277. VAN DE POLL, H.W., PATEL, I.M., RYAN, R.J., D'ORSAY, M., PLACE, C., Univ. New Brunswick (Geology):
Basin analysis of the Devonian and Permo-Carboniferous strata of Eastern Canada, 1969-; Ph.D. thesis (Ryan), M.Sc. theses (D'Orsay, Place).

See:

Quartz grain surface textures: evidence for a tropical climate during the Middle Pennsylvanian of Eastern Canada; Can. J. Earth Sci., vol. 22, p. 786-790, 1985.

1278. WOLF, R.R., Ontario Geol. Surv.:
Paleozoic geology of Cockburn Island, District of Manitoulin, Ontario, 1985-86.

See:

Paleozoic geology of Cockburn Island, Manitoulin District; Ontario Geol. Surv., Prel. Map P. 2987.

1279. ZODROW, E.L., Univ. College of Cape Breton (Geology):
Upper Carboniferous biostratigraphy of Eastern Canada, 1978-.

See:

Mabou Mines section: biostratigraphy and correlation (Pennsylvanian Pictou Group, Nova Scotia, Canada); J. Paleontol. vol. 60, no. 2, p. 208-232, 1986.

Punctuated equilibrium theory is used as model to interpret first and last records and taxa abundances for use in dividing the Upper Carboniferous rock column.

MESOZOIC/MÉSOZOÏQUE

1280. ARTHUR, A., SMITH, P.L., MONGER, J.W.H., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Stratigraphy and paleontology of the Jura-Cretaceous rocks along the west-side of Harrison Lake, southwest British Columbia, 1985-87; M.Sc. thesis (Arthur).

Three months of mapping in the summer of 1985. A current research paper will be completed for the spring of 1986. The paleontology and stratigraphy will be studied in detail in the fall and winter of 1986.

1281. ASCOLI, P., Geol. Surv. Can.:
Biostratigraphic zonation (Formaninifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf, 1971-.

1282. BENNETT, R.W., WILSON, W.A., Saskatchewan Geol. Surv.:
Local and regional stratigraphic cross-sections of western Saskatchewan, 1984-.

An on-going production of a series of local and regional stratigraphic sections, which will grid Saskatchewan north-south and east-west on a township/range interval.

1283. DIXON, J., Geol. Surv. Can.:
Geology of the Beaufort-Mackenzie Basin, 1979-.

1284. DIXON, J., Geol. Surv. Can.:
Stratigraphy and sedimentology of Jurassic-Cretaceous strata, northern Cordillera, Yukon, 1985-.

1285. EMBRY, A.F., Geol. Surv. Can.:
Mesozoic stratigraphy and basin analysis of Sverdrup Basin, Arctic Archipelago, 1975-.

See:

Stratigraphic subdivision of the Isachsen and Christopher formations (Lower Cretaceous), Arctic Islands; Geol. Surv. Can., Paper 85-1B, p. 239-246, 1985.

1286. GIBSON, D.W., Geol. Surv. Can.:
Stratigraphic and sedimentological studies of Lower Cretaceous rocks, Rocky Mountain Foothills and Front Ranges, Alberta and British Columbia, 1975-.

See:

Stratigraphy, sedimentology and depositional environments of the coal-bearing Jurassic-Cretaceous Kootenay Group, Alberta and British Columbia; Geol. Surv. Can., Bull. 357, 1985.

1287. GIBSON, D.W., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Lower Cretaceous Gething Formation, Rocky Mountain Foothills, Alberta and British Columbia, 1979-.

See:

Stratigraphy and sedimentology of the Lower Cretaceous Gething Formation, Carbon Creek Coal Basin, northeastern British Columbia; Geol. Surv. Can., Paper 80-12, 1985.

1288. GIBSON, D.W., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Lower Cretaceous Hulcross and Boulder Creek formations, Rocky Mountain Foothills, Alberta and British Columbia, 1984-.

1289. GRIEVE, D.A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Coal seam correlation, south half of Elk valley coalfield, British Columbia, 1985-86.

See:

Geology of the Elk valley coalfield, southern half; British Columbia Ministry of Energy, Mines, Petrol. Res., Prel. Map 60, 1986.

Correlation and comparison of two coal-bearing zones between Ewin Pass and Bare Mountain, Elk valley coalfield, southeastern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, 1986.

Analysis of detailed core logs and corresponding geophysical logs has led to correlation of the Imperial coal seam over a distance of 16.5 km along strike. Other horizons will be appraised for their potential for correlation.

1290. JANSA, L.F., Geol. Surv. Can.:
Reconnaissance field study of the Mesozoic sequences outcropping on the Iberian Peninsula, 1977-.

1291. KREIS, K., Saskatchewan Geol. Surv.:
Notes on the Jurassic-Cretaceous petroleum-producing zones in the Wapella-Moosomin area, southeastern Saskatchewan, 1985-.

1292. MCGUGAN, A., HENDERSON, C., Univ. Calgary (Geology and Geophysics):
1) Cretaceous Foraminifera Parksville subsurface, Vancouver Island. 2) Living Foraminifera and substrate, Vancouver Island. 3) Permian conodonts, Rockies and Arctic 4) Tectonically transported "Horses", Elk Range, Rocky Mountains, 1986-87; Ph.D. thesis (Henderson).

1293. MCNEIL, D.H., Geol. Surv. Can.:
Cretaceous-Tertiary biostratigraphy and paleoecology, polynomorphs and microfossils, 1985-.

1294. OLORIZ, F., WESTERMANN, G.E.G., McMaster Univ. (Geology), Univ. Granada, Spain:
The Upper Jurassic of northern Mexico, 1985-87.

This is the first regional study of the Upper Jurassic and its ammonite fauna since the pioneering studies of Burckhardt and Imlay, 50 to 70 years ago.

1295. POULTON, T.P., Geol. Surv. Can.:
Jurassic biostratigraphy of selected areas of western and Arctic Canada, 1976-.

1296. STOTT, D.F., Geol. Surv. Can.:
Jurassic and Cretaceous Minnes Group, Alberta and British Columbia, 1978-.

1297. STOTT, D.F., Geol. Surv. Can.:
Syntheses of Mesozoic and Cenozoic rocks of eastern Cordillera and Plains, 1981-.

1298. TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera, 1977-.

1299. TIPPER, H.W., Geol. Surv. Can.:
Biostratigraphic study of Mesozoic rocks in the Intermontane and Insular Belts of the Canadian Cordillera, 1975-.

1300. WADE, J.A., Geol. Surv. Can.:
Regional subsurface geology of Mesozoic and Cenozoic rocks of the Atlantic continental margin, 1972-.

1301. WALL, J.H., Geol. Surv. Can.:
Mesozoic and Tertiary biostratigraphy and paleoecology, District of Franklin, 1985-.

1302. WESTERMANN, G.E.G., KRISHNA, J., SIDDIQUI, K., McMaster Univ. (Geology), Varanasi, India:
The Middle Jurassic ammonite associations of Kachchh, India, 1982-87.

See:

Progress report on the Middle Jurassic ammonite zones of Kachchh, India; Newsletters Strat., vol. 14, p. 1-11, 1985.

Based on repeated field work in this remote but classical ammonite area, exactly localized new collections enable us to define new assemblages as the basis for later definition of zones.

1303. WESTERMANN, G.E.G., SANDOVAL, J., McMaster Univ. (Geology), Univ. Granada, Spain:
Bajocian ammonite faunas of Oaxaca, Mexico, 1984-85.

See:

The Late Bajocian Duashnoceras assemblage of Mixtepec, Oaxaca, Mexico; 3rd. Latinamer. Paleont. Conv. Mexico, Memoria, p. 192-199, 1985.

Biostratigraphic, chronostratigraphic and taxonomic revision of this important Mexican fauna.

1304. YOLE, R.W., BROWN, D.M., Carleton Univ. (Geology):
Stratigraphy and sedimentology of Mesozoic offshore petroliferous sequences, eastern Canada, 1982-; M.Sc. thesis (Brown).

Refinement and improvement of depositional models and diagenetic histories of Jurassic-Cretaceous reservoir sands by detailed petrographic and stratigraphic studies.

1305. YOLE, R.W., IRVING, E., Carleton Univ. (Geology), Pacific Geoscience Centre:
Stratigraphy and displacement history of Vancouver Island, British Columbia, 1970-.

Earlier paleomagnetic and biogeographic work have suggested large scale northward displacements of the Wrangellian portion of Vancouver Island (Paleozoic-Early Mesozoic) since Late Triassic. Present work on Jurassic (Bonanza Formation) rocks is intended to contribute to a more complete displacement history, and an understanding of its relationships to tectonics.

1306. YOUNG, H.R., MOORE, P.R., Brandon Univ. (Geology), New Zealand Geol. Surv.:
The Odanah shale in southwestern Manitoba, 1985-.

CENOZOIC/CÉNOZOÏQUE

1307. YORATH, C.J., Geol. Surv. Can.:
The Canadian Pacific continental margin, 1977-.

See:

Lithoprobe, southern Vancouver Island: seismic reflection sees through to Wrangellia to the Juan de Fuca plate; Geology, vol. 13, no. 11, p. 759-762, 1985.

STRUCTURAL GEOLOGY/TECTONICS/GÉOLOGIE STRUCTURALE/TECTONIQUE

ALBERTA/ALBERTA

1308. CANT, D., O'CONNELL, S., Alberta Research Coucil (Geol. Surv.):
Structure, origin, petroleum geology of the Peace River Arch, Alberta, 1984-87.

To investigate the history and to document the structure of the Peace River Arch. Regional compilation is finished – history is worked out.

1309. DWYER, M.K., SPRATT, D.A., Univ. Calgary (Geology and Geophysics):
The geometry and mechanical development of the Livingstone thrust fault and overlying structures, Livingstone River, southwestern Alberta, 1983-86; M.Sc. thesis (Dwyer).

Complex structures in the Livingstone and Bear Creek thrust sheets are the result of out-of-sequence thrusting and duplex formation was well as the obvious folding of the Livingstone thrust surface. Kinematic indicators, 1:10 000 scale mapping, balanced sections and longitudinal sections document the mode and sequence of thrust sheet emplacement.

1310. LANGENBERG, C.W., Alberta Research Council (Geol. Surv.):
Structural geology of coal measures, 1981-86.

See:

Lower Cretaceous Luscar Group (revised) of the northern and northcentral foothills of Alberta; Bull. Can. Petrol. Geol., vol. 33, p. 1-11, 1985.

The geometry of folded and thrusted rocks in the Rocky Mountain Foothills near Grande Cache, Alberta; Can. J. Earth Sci., vol. 22, no. 11, p. 1711-1719, 1985.

Final report will be completed in 1986 and published as an ARC Bulletin with accompanying maps and sections.

1311. MAUREL, L.E., SPRATT, D.A., Univ. Calgary (Geology and Geophysics):
Structure and stratigraphy of the McConnell thrust sheet at Barrier Mountain, Kananaskis, Alberta, 1982-86; Ph.D. thesis (Maurel).

Complex deformation of the McConnell thrust sheet involved the out-of-sequence development of an array of horses, duplexes, lateral, frontal, and oblique ramps. 1:10 000 mapping, balanced cross sections, longitudinal sections, stratigraphic separation diagrams and hangingwall sequence diagrams illustrate the development of these complex structures in Cambrian to Cretaceous rocks.

1312. RICHARDS, K.C., SPRATT, D.A., Univ. Calgary, Geology and Geophysics):
Structural complexities related to the McConnell thrust at Cabin Ridge, southwestern Alberta, 1985-87; M.Sc. thesis (Richards).

Near its southern termination, the McConnell thrust's displacement is dissipated in a complex system of splays and horses that have been subsequently folded. The geometry and evolution of the termination zone are being mapped at a scale of 1:10 000.

1313. SANDERSON, D.A., SPRATT, D.A., Univ. Calgary (Geology and Geophysics):
Displacement transfer between the Rundle and Coleman thrusts, Highwood – Elbow area, southwestern Alberta, 1984-86; M.Sc. thesis (Sanderson).

1:10 000 mapping, balanced cross sections, longitudinal sections, and cross-cutting relationships delineate the 3-d transfer of shortening between the Rundle and Coleman thrusts. Folds, imbricate thrusts, and transverse faults are well exposed in this transfer zone; their mode and sequence of development are determined.

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

1314. BROWN, R.L., JOURNEAY, M., LANE, L.S., MURPHY, D.C., Carleton Univ. (Geology):
Structural investigations in the Canadian Cordillera; Ph.D. theses (Lane, Murphy).

See:

Secondary magnetization of Triassic-Jurassic volcaniclastic rocks of Quesnel Terrane, Quesnel Lake, B.C.; Earth and Planetary Science Letters, 1985.

Valhalla Gneiss Complex, southeast British Columbia: 1984 Field work; Geol. Surv. Can., Paper 85-1A, p. 81-87, 1985.

To establish the interrelationships of Mesozoic compressional tectonics and superimposed Cenozoic extension in the Omineca Belt of the southern Canadian Cordillera.

1315. CAMPBELL, R.B., Geol. Surv. Can.:
Geology of the Cariboo Mountains, British Columbia, 1968-.

1316. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology and mineral resources of Tertiary outliers in south-central, British Columbia, 1980-85.

See:

Volcanology and structure of Tertiary outliers in south-central British Columbia; in Field Guides to Geology and Mineral Deposits in the Southern Canadian Cordillera, Geol. Soc. Am., p. 5-1 to 5-46, 1985.

The structure and stratigraphy of nine Tertiary outliers has been delineated and the mineral and energy resources defined.

1317. PARRISH, R.R., Geol. Surv. Can.:
Tectonic investigations of the Valhalla Gneiss Complex and vicinity, southeast British Columbia, 1985-.

1318. SLAWSON, W.F., Univ. British Columbia (Geophysics and Astronomy):
Beaufort-Cruickshank fault, Vancouver Island, British Columbia.

Surface faulting believed associated with the 1946 Vancouver Island Earthquake is believed to have been located. Field investigation of these features is being continued.

1319. TAYLOR, G.C., Geol. Surv. Can.:
Structural and stratigraphic studies of northeast British Columbia, 1981-.

1320. THOMPSON, R.I., Geol. Surv. Can.:
Detailed geological study of selected areas within the Foothills and Rocky Mountain belts of the Monkman Pass map area – with emphasis on the structure, 1978-.

MANITOBA/MANITOBA

1321. FROESE, E., Geol. Surv. Can.:
Structural studies, Thompson Belt, Manitoba, 1985-.

1322. GORDON, T.M., Geol. Surv. Can.:
Geological evolution of the southwest Churchill Province, Manitoba, 1985-.

1323. GREEN, A.G., WEBER, W., HAJNAL, Z., Manitoba Dept. Energy and Mines (Geol. Services), Univ. Saskatchewan (Geology):
Early Proterozoic tectonics in Manitoba: Trans Hudson Orogen and Churchill – Superior Boundary, 1976-.

See:

Evolution of Proterozoic terrains beneath the Williston Basin; Geology, vol. 13, p. 624-628, 1985.

The evolutionary model of the western Churchill Province and western margin of the Superior Province in Canada and the north-central United States; Tectonophysics, vol. 116, p. 281-322, 1985.

NEW BRUNSWICK/ NOUVEAU-BRUNSWICK

1324. CURRIE, K.L., Geol. Surv. Can.:
Diagenesis and structure of the Albert Formation, New Brunswick, 1985-.

1325. LEGER, A., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Diagenesis and structure of the Albert Formation, New Brunswick, 1984-86; M.Sc. thesis (Leger).

The Albert Formation straddles a zone of intense ductile and brittle faulting. Ductile faults predate Albert depositon but brittle faults of the same orientation are syn and post Albert deposition. A detailed history of the faulting is being synthesized with a view to better understanding the depositional and deformational history of the Albert Formation.

1326. VAN STAAL, C., Geol. Surv. Can.:
Structural analysis of the northern part of the Miramichi Massif, New Brunswick, 1985-.

See:

Preliminary results of structural investigations in the Bathurst camp of northern New Brunswick; Geol. Surv. Can., Paper 86-1A, p. 193-204, 1986.

1327. WILLIAMS, P.F., MAWER, C.K., Univ. New Brunswick (Geology):
Crystalline rocks from the 1982 Miramichi (New Brunswick) earthquake epicentre, 1983-85.

See:

Crystalline rocks as possible paleoseismicity indicators; Geology, vol. 13, p. 100-102, 1985.

1328. WILLIAMS, P.F., MCALLISTER, A.L., MORETON, C., Univ. New Brunswick (Geology):
The structure and stratigraphy of the Heath Steele Mines ore zones, Newcastle, New Brunswick, 1984-88; Ph.D. thesis (Moreton).

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

1329. ANTONUK, C., ELLIOTT, C., LAFRANCE, B., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Structural and tectonic studies in southwestern New World Island, Newfoundland, 1982-88; Ph.D. theses (Elliott, LaFrance), M.Sc. thesis (Antonuk).

See:

Stratigraphy, structure and timing of deformation of southwestern New World Island, Newfoundland; Geol. Surv. Can., Paper 85-1B, p. 43-49, 1985.

1330. CARON, A., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Kinematic indicators along faults in Newfoundland, 1984-87; Ph.D. thesis (Caron).

A detailed examination of fault kinematics in Newfoundland. Work so far has been on the Dover Fault which separates the Avalon and Gander Zones.

1331. WILLIAMS, H., CAWOOD, P., Memorial Univ. (Earth Sciences):
Mapping and synthesis of entire Humber Arm Allochthon, west Newfoundland, 1978-86.

See:

Stephenville map area, Newfoundland; Geol. Surv. Can., Map 1579A, 1985.

A map of the entire Humber Arm Allochthon at 1:250 000 and accompanying report are planned for 1987.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

1332. CHRISTIE, R.L., Geol. Surv. Can.:
Structural and stratigraphy of the Paleozoic-Mesozoic basins of Melville and adjacent islands, District of Franklin, 1984-.

1333. COOK, D.G., Geol. Surv. Can.:
Structural geology and tectonic Continental Shelf, District of Mackenzie, 1984-.

1334. COOK, D.G., Geol. Surv. Can.:
Structural, tectonic and stratigraphic analysis of the Arctic Islands, District of Franklin, 1985-.

1335. CULLEN, R., FYSON, W.K., Univ. Ottawa (Geology):
Stratigraphy, structures and metamorphism of volcanic and sedimentary rocks, Fenton Lake, Slave Province, Northwest Territories, 1985-; M.Sc. thesis (Cullen).

1336. EMBRY, A.F., Geol. Surv. Can.:
Stratigraphy and structure of Arctic Continental Shelf, District of Franklin, 1984-.

1337. FYSON, W.K., Univ. Ottawa (Geology):
Structural patterns and tectonics of metamorphic terrains, Slave Province, Northwest Territories, 1972-.

1338. HANMER, S., Geol. Surv. Can.:
Displacement history of major shear zones in western Churchill Province, 1983-.

See:

Anatomy of a ductile transcurrent shear: the Great Slave Lake Shear Zone, District of Mackenzie, NWT (preliminary report); Geol. Surv. Can., Paper 85-1B, p. 7-22, 1985.

1339. HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Penrhyn Fold Belt, Melville Peninsula, District of Franlin, 1976-.

1340. HILDEBRAND, R.S., Geol. Surv. Can.:
Hottah Terrane, District of Mackenzie, 1982-.

1341. HOFFMAN, P.F., Geol. Surv. Can.:
Externides of Wopmay Orogen, District of Mackenzie, 1981-.

1342. KING, J.E., Geol. Surv. Can.:
Structural studies in the metamorphic hinterland of Wopmay Orogen, District of Mackenzie, 1985-.

See:

Geology of the northwestern metamorphic-internal zone and an outlier of the eastern Great Bear Magnetic Zone of Wopmay Orogen, Big Bend area, District of Mackenzie; Geol. Surv. Can., Paper 86-1A, p. 21-33, 1986.

1343. OKULITCH, A.V., Geol. Surv. Can.:
Stratigraphy, structure and tectonics, Innuition Fold Belt, Ellesmere Island, District of Franklin, 1979-

1344. ST-ONGE, M.R., Geol. Surv. Can.:
Thrust-fold belt of Wopmay Orogen-internal zone, District of Mackenzie, 1981-.

1345. SCHWERDTNER, W.M., Univ. Toronto (Geology):
Mechanical significane of gypsum-anhydrite in the tectonic deformation of Sverdrup Basin strata, District of Franklin, 1981-.

See:

Gypsum-anhydrite caps of Arctic salt domes, Queen Elizabeth Islands: products of active and passive diapirism; 6th Internat. Symp. on Salt, vol. 1, p. 311-314, 1985.

Evaporites are controlling the deformation of basin files because of their buoyant and lubricating qualities – studying the deformation of anhydrite in diapirs and thrusts to document these qualities.

1346. SCHWERDTNER, W.M., TORRANCE, J., Univ. Toronto (Geology):
Mechanical role of evaporites in the tectonic deformation of sedimentary strata in Sverdrup Basin, 1985; M.Sc. thesis (Torrance).

Evaporites are buoyant media and act as natural lubricants in the thin-skinned tectonic regime of the eastern Sverdrup Basin.

1347. WILLIAMS, G.K., Geol. Surv. Can.:
Northern basin analysis program: Redstone and Great Slave Lake map-areas, District of Mackenzie, 1971-.

NOVA SCOTIA/NOUVELLE-ÉCOSSE

1348. WHITE, J.C., GAO, R., Univ. New Brunswick (Geology):
Microstructural studies on the Cobequid and Hollow Fault Zones in Nova Scotia, 1985; M.Sc. thesis (Gao).

ONTARIO/ONTARIO

1349. CONNELLEY, J.N., DIXON, J.M., CARMICHAEL, D.M., HANMER, S.K., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
The emplacement history of the Elzevir Batholith with respect to the Grenville Supergroup, southeastern Ontario, 1983-86; M.Sc. thesis (Connelly).

See:

The Elzevir Batholith: emplacement history with respect to the Grenville Supergroup and Flinton Group, southeastern Ontario; Geol. Surv. Can., Paper 85-1B, p. 161-167, 1985.

Strain patterns around and within a Grenville granitoid batholith (1240 Ma) suggest the batholith was emplaced diapirically into a regionally deforming terrane. Structural and metamorphic relationships suggests metasediments of the Flinton Group may have been tectonically emplaced.

1350. HANMER, S., Geol. Surv. Can.:
Structural studies in the Grenville Province of Ontario and western Quebec, 1983-.

See:

Anatomy of a ductile thrust zone: part of the northwest boundary of the Central Metasedimentary Belt, Grenville Province, Ontario (preliminary report); Geol. Surv. Can., Paper 85-1B, p. 1-5, 1985.

1351. PERCIVAL, J.A., Geol. Surv. Can.:
Geological and geophysical studies of the Kapuskasing structure, Ontario, 1985-.

1352. SANBORN, M.M., Univ. Toronto (Geology):
The role of brittle-ductile shear in the formation of gold-bearing quartz-carbonate veins in the West Carbonate Zone of the Cochenour Willans Gold Mine, Red Lake, Ontario, 1983-86; M.Sc. thesis.

1353. SCHWERDTNER, W.M., Univ. Toronto (Geology):
Macro-deformation of meta-plutonic gneiss in selected terranes of north western and central Ontario, 1985-.

Depending on the degree of structural anisotropy, gneissic fabrics have deformed actively or passively. Attempts are being made to estimate this degree in common metaplutonic rocks.

1354. SCHWERDTNER, W.M., HUGON, H., Univ. Toronto (Geology):
Structural signature of gold-bearing rocks in northwestern Ontario, 1983-86.

An indepth, field-based study of selected ore bodies and their wall rocks in the Red Lake and Hemlo mining camps, northwestern Ontario.

1355. SCHWERDTNER, W.M., STOTT, G.M., MORGAN, J., SHANKS, W.S., VAN KRANENDONK, M., SANBORN, M.M., Univ. Toronto (Geology):
Strain patterns of large geological structures in southern Canadian Shield, 1979-87; Ph.D. theses (Stott, Morgan, Shanks), M.Sc. theses (van Kranendonk, Sanborn).

See:

Preliminary estimates of continuous horizontal shortening across an Archean greenstone belt; Can. J. Earth Sci., vol. 22, p. 506-513, 1985.

Contacts between greenstone belts and gneiss complexes with Wabigoon Subprovince, northwestern Ontario; Geol. Assoc. Can., Spec. Paper 28, p. 117-123, 1985.

Deals with strain patterns on the scale of tens of km and their use in unravelling the tectonic evlution of the Precambrian crust.

1356. SCHWERDTNER, W.M., VAN BERKEL, J.T., EASTON, R.M., Univ. Toronto (Geology), Ontario Geol. Surv.:
Tectonic and magmatic implications of thin anorthositic units in the Central Gneiss Belt of southwestern Ontario, Grenville Province, 1983-86.

See:

Anorthosite studies: Muskoka District, Haliburton and Victoria Counties; Ontario Geol. Surv., Misc. Paper 126, p. 127-130, 1985.

Precambrian geology of the Digby – Lutterworth area, Haliburton and Victoria Counties; Ontario Geol. Surv., Prel. Map Series, Maps P.2951 (west half) and P. 2952 (east half), 1985.

Thin anorthositic units (colour index 05-30) are common in the southwest Grenville Province. They are typically 10-20 m thick and up to 20 km long. Two geological models may explain their origin: 1) tectonic breakup and subsequent intense deformation of a Proterozoic massif-type parent body by northwest-directed thrusting; and 2) moderately deformed sills or sheets of intrusive gabbroic anorthosite magma. Field evidence, strain analysis of textures and geochemical results support the intrusive model. These units may be feeder dikes for more typical massif-type parents now eroded away, or they may be part of a heterogeneous sheeted sill complex. Units with a gneissic texture were deformed in high strain zones separating structural lithological domains.

1357. THIVIERGE, R.H., FYSON, W.K., Univ. Ottawa (Geology):
Structural relationships at the northwestern margin of the Central Metasedimentary Belt, Bancroft-Barry's Bay area, Grenville Province, Ontario, 1981-; M.Sc. thesis (Thivierge).

1358. WHITE, J.C., MAWER, C.K., TREMBLAY, M.L., Univ. New Brunswick (Geology):
Deformation of feldspars in the Parry Sound Shear Zone, Ontario, 1983-; M.Sc. thesis (Tremblay).

1359. WILLIAMS, H.R., Brock Univ. (Geological Sciences):
Geology of the Britt Pluton and associated rocks, Central Gneiss Complex, Grenville Province, Ontario, 1982-.

Publication in preparation details the geology, petrology and geochemistry of the Britt pluton, associated mafic rocks, and host gneisses.

1360. WILLIAMS, H.R., BUCK, S., REILLY, B., Brock Univ. (Geological Sciences):
Structural studies in the Wabigoon and Quetico Subprovinces, northern Ontario, 1984-; M.Sc. theses (Buck, Reilly):

Publication submitted details evidence for an accretionary prism model for the Quetico Subprovince.

1361. WILSON, B.C., DIXON, J.M., HELMSTAEDT, H., Queen's Univ. (Geological Sciences):
Deformation and intrusion in the Red Lake volcanic belt, Ontario, 1982-86; Ph.D. thesis (Wilson).

Includes shear fracturing and gold concentration.

QUÉBEC

1362. BARAGAR, W.R.A., Geol. Surv. Can.:
The tectonics of Archean and Proterozoic gneisses bordering the Ungava Trough, Québec, 1985-.

1363. GOULET, N., BÉLANGER, M., Université du Québec à Montréal, Ministère de l'Énergie et des Ressources du Québec:
Synthèse structurale de la partie nord de la Fosse du Labrador, 1984-87.

Une compréhension du style tectonique ainsi que du méchanisme de déformation de la partie nord de la Fosse du Labrador et un aperçu des métallotectes dans la région dans la mesure ou ils sont liés à l'histoire tectono-métamorphique.

1364. ST-ONGE, M.R., Geol. Surv. Can.:
Cape Smith Fold-Thrust Belt-east end, Québec, 1985-.

1365. VAN DER LEEDEN, J., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Synthèse structurale des secteurs avoisinants les rivières George et De Pas, 1985-87.

Ce travail vise une compréhension de l'évolution structurale de la région. Il fait partie d'un projet à long terme qui a débuté en 1983 et qui a comme objectif une reconnaissance géologique et une évaluation du potentiel minéral du territoire à l'est de la Fosse du Labrador.

YUKON TERRITORY/TERRITOIRE DU YUKON

1366. COOK, D.G., Geol. Surv. Can.:
Structural studies in the Mackenzie Arc, Franklin Mountains and Colville Hills, Yukon and District of Mackenzie, 1975-.

1367. HARRISON, J.C., Geol. Surv. Can.:
Structure and tectonics of Melville and adjacent islands, 1984-.

1368. NORRIS, D.K., Geol. Surv. Can.:
Structural geology of northern Yukon Territory and northwestern District of Mackenzie, 1969-.

See:

The Neruokpuk Formation, Yukon Territory and Alaska; Geol. Surv. Can., Paper 85-1B, p. 223-229, 1985.

Lower Devonian Road River Formation on the north flank of Romazof Uplift, northern Yukon Territory; Geol. Surv. Can., Paper 86-1A, p. 801, 802, 1986.

1369. TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Stratigraphy, structure and metallogeny of Pelly Mountains and Yukon Plateau, Yukon Territory, 1973-.

GENERAL/GÉNÉRALITÉS

1370. BROOKFIELD, M., SAHNI, A., Univ. Guelph (Land Resource Science), Chandigarh, India:
Cretaceous terrestrial environments in India, 1985-.

1371. DIXON, J.M., Queen's Univ. (Geological Sciences):
Centrifuge modelling of foreland folding, 1984-88.

The influence of stratigraphy on the nucleation and propagation of folds and faults in a horizontally compressed foreland setting is investigated by the technique of analog scale modelling using a 20 000 G. centrifuge.

1372. KEPPIE, J.D., CHATTERJEE, A.K., Nova Scotia Dept. Mines and Energy:
Metallotectonic project, 1984-89.

See:

Appalachian collage: in The Caledonide Orogen:Scandinavia and related areas, ed. D.G. Gee and B.A. Sturt, J. Wiley & Sons, p. 1217-1226, 1985.

To relate the mineralization to the tectonic evolution of Nova Scotia.

1373. KING, L.H., Geol. Surv. Can.:
Bedrock and surficial geology, Grand Banks, 1973-.

1374. MAWER, C.K., WILLIAMS, P.F., Univ. Brunswick (Geology):
Development of flattening strains in shear zones, 1983-85.

1375. SOUTHER, J.G., Geol. Surv. Can.:
Study of the Cenozoic evolution of the western Cordillera, 1977-.

1376. SPRATT, D.A., Univ. Calgary (Geology and Geophysics):
Deformation mechanics and 3-d structural geometries of foreland thrust belts, 1984-.

Lithological and structural controls on the 3-d geometries of thrust surfaces and the development of disjunctive spaced cleavage are studied based on detailed mapping (1:10 000) and the kinematic analysis of mesoscopic and microscopic structures.

1377. SRIVASTAVA, S.P., Geol. Surv. Can.:
Comparative studies of the continental margins of the Labrador Sea and of the North Atlantic, 1978-.

1378. STRINGER, P., Univ. New Brunswick (Geology):
Relation of cleavage to folding in the Appalachian-Caledonian orogenic belt, 1985-86.

1379. TSIKOS, G., DIXON, J.M., Queen's Univ. (Geological Sciences):
Scale modelling and fracture analysis in a centrifugally-induced diapiric strain field, 1982-86; M.Sc. thesis (Tsikos).

Models of diapiric structures are spun in a centrifuge and are used to test a hypothesis of fracture geometry in a three-dimensional strain field. The models are evaluated with respect to natural geologic structures.

1380. WHITE, J.C., MAITLAND, W.G., Univ. New Brunswick (Geology):
Deformation in granulite facies rocks, 1985-; M.Sc. thesis (Maitland).

1381. WILLIAMS, P.F., Univ. New Brunswick (Geology):
Deformation mechanisms and tectonic processes, 1980-.

See:

Multiply deformed terrains – problems of correlation; J. Structural Geol., vol. 7, nos. 3/4, p. 269-280, 1985.

VOLCANOLOGY/VOLCANOLOGIE

1382. BOSTOCK, H.H., Geol. Surv. Can.:
Volcanic rocks of the Appalachian region, 1973-.

1383. CROCKET, J.H., MCROBERTS, G.G., McMaster Univ. (Geology):
Volcanic stratigraphy of the Larder Lake Group west of the Adams Mine, Ontario, 1983-; M.Sc. thesis (McRoberts).

Involves detailed mapping of terrain immediately west of the Adams Mine open pit in Boston Tp., Ontario – to characterize the stratigraphy which is laterally equivalent to that of the banded iron formation of the Adams Mine.

1384. DE ROSEN-SPENCE, A., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Alteration and lithogeochemistry of volcanic sequences in British Columbia, 1983-.

See:

The potassium-rich volcanic rocks of Tillicum Mountain; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1986-1, p. 45-50, 1986.

1385. DIMROTH, E., IMREH, L., COUSINEAU, P.A., LEDUC, M., SANSCHAGRIN, Y., Ministère de l'Énergie et des Ressources du Québec, Université du Québec à Chicoutimi:
Volcanologie, 1985-.

See:

Paleogeographic analysis of mafic submarine flows and its use in the exploration for massive sulphide deposits; Geol. Assoc. Can., Spec. Paper 28, p. 203-222, 1985.

1386. HAMILTON, T.S., Geol. Surv. Can.:
Volcanic rocks of the Insular Belt and adjacent deep ocean, British Columbia, 1982-.

1387. THURSTON, P.C., FRYER, B.J., Ontario Geol. Surv., Memorial Univ. (Earth Sciences):
Volcanology and trace element geochemistry of the Abitibi Subprovince, Ontario, 1980-86.

Trace element geochemistry applied to the volcanological evolution of the Ontario part of the Subprovince

1388. VALIQUETTE, G., DOYON, M., IREM, Ministère de l'Énergie et des Ressources du Québec:
Synthèse géologique des roches volcaniques du centre-nord de la Gaspésie, Québec, 1985-87; thèse de maîtrise (Doyon).

Étude des roches volcaniques dévoniennes et plus jeunes autour du Dôme de Lemieux, Gaspésie. Première de deux saison de terrain completée.

Acadia University,
Department of Geology,
Wolfville, Nova Scotia
B0P 1X0

Alberta Research Council,
Geological Survey,
3rd Floor, Terrace Plaza,
4445 Calgary Trail South,
Edmonton, Alberta
T6H 5R7

Alberta University,
Department of Geology,
158 Earth Sciences Bldg.,
Edmonton, Alberta
T6G 2E3

Alberta University,
Department of Zoology,
CW312 Biological Sciences Bldg.,
Edmonton, Alberta
T6G 2E9

Brandon University,
Department of Geology,
Brandon, Manitoba
R7A 6A9

Bristol University,
Department of Geology,
Bristol, England
BS8 1TR

British Columbia University,
Department of Geological Sciences,
6339 Stores Road, University Campus,
Vancouver, British Columbia
V6T 2B4

British Columbia University,
Dept. of Geophysics and Astronomy,
No. 129-2219 Main Mall,
University Campus,
Vancouver, British Columbia
V6T 1W5

British Columbia Ministry of Energy,
Mines, and Petroleum Resources,
Geological Branch,
418-617 Government Street,
Victoria, British Columbia
V8V 1X4

Brock University,
Department of Geological Sciences,
St. Catharines, Ontario
L2S 3A1

Calgary University,
Department of Geology and Geophysics,
2500 University Drive N.W.,
Calgary, Alberta
T2N 1N4

Canada Centre for Mineral and
Energy Technology (CANMET)
Department of Energy, Mines and
Resources,
555 Booth Street,
Ottawa, Ontario
K1A 0G1

Cape Breton University College,
Department of Geology,
P.O. Box 5300,
Sydney, Cape Breton,
Nova Scotia
B1P 6L2

Carleton University,
Department of Geology,
Ottawa, Ontario
K1S 5B6

Dalhousie University,
Department of Oceanography,
Halifax, Nova Scotia
B3H 4J1

École Polytechnique,
Département de Génie minéral,
Campus de l'Université de Montréal,
Case postale 6079, Succ. "A",
Montréal, Québec
H3C 3A7

Environment Canada,
National Hydrology Research Institute,
Ottawa, Ontario
K1A 0E7

Geological Survey of Canada,
Department of Energy, Mines
and Resources,
601 Booth Street,
Ottawa, Ontario
K1A 0E8

Guelph University,
Dept. of Land Resource Science,
Guelph, Ontario
N1G 2W1

Indian and Northern Affairs Canada,
Geology Office,
Box 1500,
Yellowknife, N.W.T.
X1A 2R3

Lakehead University,
Department of Geography,
Postal Station P,
Thunder Bay, Ontario
P7B 5E1

Laurentian University,
Department of Geology,
Ramsey Lake Road,
Sudbury, Ontario
P3E 2C6

Laval University,
Département de géographie,
Cité Universitaire,
Ste. Foy, P.Q.
G1K 7P4

Laval University,
Département de géologie et
minéralogie,
Cité Universitaire,
Ste. Foy, P.Q.
G1K 7P4

Manitoba University,
Department of Earth Sciences,
Winnipeg, Manitoba
R3T 2N2

Manitoba Department of Energy
and Mines,
Mineral Resources Division,
993 Century Street,
Winnipeg, Manitoba
R3H 0W4

McGill University,
Department of Geography,
Burnside Hall,
805 Sherbrooke Street West,
Montréal, Québec
H3A 2K6

McMaster University,
Department of Geography,
1280 Main St. W.,
Hamilton, Ontario
L8S 4K1

McMaster University,
Department of Geology,
1280 Main Street West,
Hamilton, Ontario
L8S 4M1

Memorial University of Newfoundland,
Department of Earth Sciences,
St. John's, Newfoundland
A1B 3X5

Ministère de l'Énergie et des
Ressources du Québec,
Service de la Géologie,
1620, boul. de l'Entente,
Québec, Québec
G1S 4N6

Montréal Université,
Département de géographie,
C.P. 6128,
Montréal, Québec
H3C 3J7

Montréal Université,
Département de géologie,
C.P. 6128, Succ. "A",
Montréal, Québec
H3C 3J7

Mount Allison University,
Department of Geology,
Sackville, New Brunswick
E0A 3C0

National Museum of Natural Sciences,
Paleobiology Division,
Ottawa, Ontario
K1A 0M8

National Research Council,
Division of Building Research,
Ottawa, Ontario
K1A 0R6

New Brunswick University,
Department of Geology,
Box 4400,
Fredericton, New Brunswick
E3B 5A3

New Brunswick University,
Department of Geology,
Tucker Park,
P.O. Box 5050,
Saint John, New Brunswick
E2L 4L5

New Brunswick Department
of Forestry, Mines and Energy,
Mineral Resources Division,
P.O. Box 6000,
College Hill Road,
Fredericton, New Brunswick
E3B 5H1

Newfoundland Department of
Mines and Energy,
Mineral Development Division,
P.O. Box 4750,
St. John's, Newfoundland
A1C 5T7

Nova Scotia Department of
Mines and Energy,
1690 Hollis Street,
P.O. Box 1087,
Halifax, Nova Scotia
B3J 2X1

Ontario Ministry of Natural Resources,
Ontario Geological Survey,
11th Floor - 77 Grenville Street,
Toronto, Ontario
M5S 1B3

Ottawa University,
Département de Géographie,
165 Waller Street,
Ottawa, Ontario
K1N 6N5

Ottawa University
Department of Geology,
Ottawa, Ontario
K1N 6N5

Université du Québec à Montrèal,
Département de géographie,
C.P. 8888, Succ. A,
Montréal, Quebec

Université du Québec à Québec,
Institut National de la Recherche
Scientifique (INRS-Géoressources),
Complex Scientifique,
2700, rue Einstein,
Case postale 7500,
Ste-Foy, Québec
G1V 4C7

Queen's University
Department of Geography,
Kingston, Ontario
K7L 3N6

Queen's University,
Department of Geological Sciences,
Kingston, Ontario
K7L 3N6

Redpath Museum,
McGill University,
859 Sherbrook Street West,
Montréal, Québec
H3A 2K6

Regina University,
Department of Geological Sciences,
Regina, Saskatchewan
S4S 0A2

Royal Ontario Museum,
Department of Invertebrate
Palaeontology,
100 Queen's Park,
Toronto, Ontario
M5S 2C6

Royal Ontario Museum,
Department of Mineralogy and Geology,
100 Queen's Park,
Toronto, Ontario
M5S 2C6

Royal Ontario Museum,
Department of Vertebrate Palaeontology,
100 Queen's Park,
Toronto, Ontario
M5S 2C6

Saskatchewan Museum of Natural History,
Wascana Park,
Regina, Saskatchewan
S4P 3V7

Saskatchewan University,
Department of Geography,
Saskatoon, Saskatchewan
S7N 0W0

Saskatchewan University,
Department of Geological Sciences,
Saskatoon, Saskatchewan
S7N 0W0

Saskatchewan Department of
Energy and Mines,
Saskatchewan Geological Survey,
1211-1914 Hamilton Street,
Regina, Saskatchewan
S4P 4V4

Université de Sherbrooke,
Département de Géographie,
Sherbrooke, Québec
J1K 2R1

Simon Fraser University,
Department of Physics,
Burnaby, British Columbia
V5A 1S6

Sir Sandford Fleming College,
School of Natural Resources,
Frost Campus,
P.O. Box 8000,
Lindsay, Ontario
K9V 5E6

St. Francis Xavier University,
Department of Geology,
Antigonish, Nova Scotia
B2G 1C0

Toronto University,
Department of Geology,
Toronto, Ontario
M5S 1A1

Victoria University,
Department of Geography,
P.O. Box 1700,
Victoria, British Columbia
V8W 2Y2

Waterloo University,
Department of Geography,
Waterloo, Ontario
N2L 3G1

Waterloo University,
Department of Earth Sciences,
Waterloo, Ontario
N2L 3G1

Western Ontario University,
Department of Geography,
Social Science Centre,
London, Ontario
N6A 5C2

Western Ontario University,
Department of Geology,
Biological and Geological Building,
London, Ontario
N6A 5B7

Windsor University,
Faculty of Social Science Geography,
Windsor, Ontario
N9B 3P4

Windsor University,
Department of Geology,
Windsor, Ontario
N9B 3P4

York University,
Department of Geography,
Atkinson College,
4700 Keele Street,
Downsview, Ontario
M3J 2R7

LIST OF GRANT AWARDS IN THE EARTH SCIENCES FOR 1985-86/ LISTE DES SUBVENTIONS ATTRIBUÉES AUX SCIENCES DE LA TERRE EN 1985-86

Department of Energy, Mines and Resources, Research Agreements 1985-86/ Ministère de l'Énergie, des Mines et des Ressources, conventions de recherche 1985-86

BRITISH COLUMBIA

University of British Columbia

Calvert, S.E. (Oceanography)
Geochemistry of oceanic ferromanganese deposits, $7,500.00.

Elis, R.M. (Geophysics and Astronomy)
Determination of crustal and upper mantle structure from the analysis of teleseismic P-waveforms, $5,000.00

Russell, R.D. (Geophysics and Astronomy)
Development of a fluxgate gradiometer for ocean bottom magnetotelluric measurements, $5,000.00.

Watanabe, T. (Geophysics and Astronomy)
Geomagnetically induced currents in power transmissions systems, $5,000.00.

Simon Fraser University

Huntley, D.J. (Physics)
Laser dating of sediments, $7,650.00.

Poiker, T.K. (Geography)
Modelling of topographic surfaces, $9,000.00.

Roberts, M.C. (Geography)
The internal architecture of the Fraser Delta, $6,900.00.

ALBERTA

University of Alberta

Chamberlain, V.E. (Geology)
Age dating of paleomagnetically analyzed Early Proterozoic rocks of the Slave Province, $4,000.00.

Cruden, D.M. (Geology)
Geotechnical characterization of materials in slope movements in the Cordillera, $8,000.00.

Hein, F.J. (Geology)
Sedimentology and geotechnical properties of surficial (upper 3 m) bottom sediments, Baffin Island Fjords, $9,000.00.

Jones, F.W. (Physics)
An investigation of the relationships between geothermal and other geophysical and geological data in high-temperature regions of the Western Canadian Sedimentary Basin, $6,000.00.

Jones, B. (Geology)
Stratigraphy and facies relationships of Middle to Upper Devonian clastic formations, Melville Island, Canadian Arctic Archipelago, $9,000.00.

Morton, R.D. (Economic Geology)
The use of LANDSAT-MSS- and TM-data, together with geological data-bases, for possible application to mineral exploration in Western Newfoundland, $3,000.00.

Nesbitt, B.E. (Geology)
An investigation of the origin of gold in the White Channel Gravels of the Klondike, Yukon, $9,600.00.

Pemberton, S.G. (Geology)
Ichnology of the Cardium Formation subsurface analysis of the Pembina Field, $3,000.00.

Schwartz, F.W. (Geology)
A three-dimensional model for radioactive contaminant transport, $9,000.00.

Scott, J.D. (Civil Engineering)
Pressurized core sampler for oil sand and heavy oil formations, $7,500.00.

University of Calgary

Hills, L.V. (Geology and Geophysics)
Fossil Charophyta of Canada, $2,950.00.

Oldershaw, A.E. (Geology and Geophysics)
Stratigraphy, sedimentology, paleoecology and diagenesis of the Belcher Channel Formation, Lower Permian, southwestern Ellesmere Island, $9,000.00.

Simony, P.S. (Geology and Geophysics)
Tectonics and metamorphism in North Thompson area, British Columbia, $11,000.00.

Alberta Research Council

Edwards, D. (Alberta Geol. Surv.)
Construction aggregate survey and projection study, $5,000.00.

SASKATCHEWAN

University of Regina

Binda, P.L. (Geology)
Stratiform copper occurrences of the Belt in Alberta and British Columbia, $5,000.00.

Saskatchewan Research Council

Hoeve, J.
Rubidium/strontium dating of diabase dikes in the Athabasca Basin, $5,700.00.

University of Saskatchewan

Braun, W.K. (Geological Sciences)
Biostratigraphy and Ostracode faunas of Middle and Upper Devonian Formations, Rocky Mountain region, Canada, $2,930.00.

Caldwell, W.G.E. (Geological Sciences)
Early Cretaceous foraminiferal biostratigraphy of northeastern British Columbia, $6,000.00.

Gendzwill, D.J. (Geological Sciences)
Natural and induced seismicity in Saskatchewan, $13,000.00.

Hajnal, Z. (Geological Sciences)
Athabasca Basin physical properties, $20,000.00.
Analysis of a high-resolution seismic profile over Haughton Impact Structure, $8,000.00.

MANITOBA

University of Manitoba

Ayres, L.D. (Earth Sciences)
Morphology and genesis of shallow water, sub-aqueous Proterozoic basalt flows, Flin Flon, Manitoba, $4,000.00.

Cerny, P. (Earth Sciences)
Geochemistry of Niobium-Tantalum ore minerals in granitic pegmatites, $7,000.00.

Halden, N.M. (Earth Sciences)
Geochemical analysis of major instrusive units and associated neosome at the Churchill-Superior Margin, $3,000.00.

Hall, D.M. (Earth Sciences)
Geoscience research and its effectiveness in influencing technology in the fields of exploration for mineral resources, mining and mineral processing, $8,000.00.

Last, W.M. (Earth Sciences)
Geology and geochemistry of sodium sulphate deposits in the Plains of Western Canada, $4,000.00.

ONTARIO

Carleton University

Bell, K. (Geoscience Studies)
Genesis of the East Kemptville tin deposit and the host Davis Lake monzogranite, southwest Nova Scotia, $8,500.00.

Brown, R.L. (Geology)
The Monashee décollement and its structural relationship to the Valhalla Complex of southeastern British Columbia, $11,000.00.

Csorgo, M. (Mathematics and Statistics)
Quantile processes applied to randomly censored data in the earth sciences, $4,500.00.

Michel, F.A. (Geology)
Nature and history of ground ice, Yukon, $6,000.00.

McMaster University

Clifford, P.M. (Geology)
Petrologic and structural evolution of the rocks in the vicinity of Killarney, Ontario, $6,000.00.

Crocket, J.H. (Geology)
Rare earth elements as aids to mineral exploration for Archean volcanic-hosted gold deposits, $8,000.00.

University of Ottawa

Hattori, K. (Geology)
Geochemical and petrographic study of the gold mineralization at Bell Creek, Hoyle Township, Timmins, Ontario, $7,000.00.

Lalonde, A.E. (Geology)
Crust and mantle contributions to the genesis of the collisional Hepburn Batholith of Wopmay Orogen, N.W.T., $6,800.00.

Rust, B.R. (Geology)
Sedimentary environments of the Bar River Formation, Huronian Supergroup, Ontario, $3,500.00.

Queen's University

Dalrymple, R.W. (Geological Sciences)
Sedimentation and dynamics of shoreface-connected ridges, Sable Island Bank, Nova Scotia, $8,000.00.

Dyke, L. (Geological Sciences)
Formation of ice wedges in bedrock as a mechanism of bedrock frost hearing, $3,500.00.

Farrar, E. (Geological Sciences)
Geochronology and isotopic thermal history of igneous and metamorphic rocks from the central Kootenay Arc and Purcell Anticlinorium, southeastern British Columbia, and their tectonic implications, $4,800.00.

Nichol, I. (Geological Sciences)
Partitioning of gold in humus as key to understanding gold dispersion in humus, $13,000.00.

Smol, J.P. (Botany)
Fossil cladoceran assemblages in lake sediment stratigraphies from the Canadian High Arctic, $5,000.00.

Vreeken, W.J. (Geography)
Quaternary soil-geomorphology of southwestern Saskatchewan, $3,000.00.

Royal Ontario Museum

Wicks, F.J. (Mineralogy and Geology)
The mineralogy and geochemistry of the serpentinized ultramafic bodies of the Manitoba Nickel Belt, $8,500.00.

Sir Sanford Fleming College

Watts, S.H. (Geology)
Bedrock weathering processes and products beyond the Laurentide Ice Margin, northern Yukon Territory, $6,500.00.

University of Toronto

Dunlop, D.J. (Geophysics)
Thermal and chemical remagnetization as a guide to tectonic and metamorphic history, $5,200.00.

Eyles, N. (Geology)
A sedimentological, paleomagnetic and geotechnical study of Late Quaternary sediments in the Upper Fraser River Valley; significance for terrain evaluation in the Central Interior of British Columbia, $6,000.00.

Gittins, J. (Geology)
Effect of alkalinity on formation of niobium ore bodies of carbonatite magmas, $6,500.00.

Halls, H.C. (Geology)
A paleomagnetic study of sills and dykes in the Sverdrup Basin, and their relation with evaporite diapirism, $9,550.00.

Naldrett, A.J. (Geology)
Activity-composition relations of nickel, copper and platinum in silicate melts and the segregation of magmatic sulfide ores, $10,550.00.

Strangway, D.W. (Geology)
High resolution crustal magnetization map of southern part of Vancouver Island, $20,000.00.

West, G.F. (Physics)
Crustal structure of the Kapuskasing Structural Zone, $8,000.00.

Westgate, J.A. (Geology)
Geochronology and palaeomagnetism of Quaternary basalts and tephra in Yukon Territory, $5,000.00.

University of Waterloo

Dusseault, M.B. (Earth Sciences)
Behaviour of halite tailings as backfill, $10,000.00.

Franklin, J.A. (Earth Sciences)
Photo-image analysis of rock jointing, $10,000.00.

Roberts, R.G. (Earth Sciences)
A comparative study of the relationships between the compositions of gold-bearing quartz veins and their non-vein, gold-bearing host rocks, $7,500.00.

University of Western Ontario

Lenz, A.C. (Geology)
Stratigraphy, biostratigraphy and sedimentology of lower Paleozoic formations, NW Melville Island, Arctic Archipelago, $8,000.00.

QUÉBEC

École Polytechnique

Chouteau, M. (Génie minéral)
Optimisation de la méthode magnétotellurique (MT) pour la prospection minière, $10,000.00.
Elbrond, J. (Génie mineral)
La dilution de stériles et la perte de minerai dans les mines souterraines, $11,000.00.

Université Laval

Allard, M. (Géographie)
Le Quaternaire et le pergélisol sur la côte sud de la Baie d'Ungava, Québec, $6,000.00.
Lortie, G. (CRSNG)
Diatom stratigraphy and river discharges history in the Recent Saguenay Fjord (Quebec) sediments, $3,500.00.

McGill University

Granberg, H.B. (Geography)
Schefferville permafrost research, $5,500.00.
Hynes, A. (Geological Sciences)
Tectonic evolution of the Labrador Trough at 58°N, $8,000.00.
Mountjoy, E.W. (Geological Sciences)
Bedrock geology, structure and metamorphism of the footwall of the Purcell Thrust in the western Selwyn Mountains, eastern British Columbia, $7,300.00.
Rowlands, N. (Mining and Metallurgical Eng.)
A geotechnical study of Longwall Face Gateroads in the Cape Breton coalfield, $10,400.00.

Université de Montréal

Hubert, H. (Géologie)
The evolution of the southern sector of the Abitibi Belt: an integration of geological studies, $6,500.00.

Université du Québec à Chicoutimi

Dimroth, E. (Sciences appliquées)
L'origine de la zonation chimique des coussins et des hyaloclastites associées, $4,500.00.

Université du Québec à Montréal

Causse, C. (Sciences de la terre)
Application de la méthode du déséquilibre radioactif-U/Th à la datation de la matière organique fossile des dépôts meubles interglaciaires et interstadiaires, $5,000.00.
Prichonnet, G.P. (Sciences de la terre)
Étude des dépots quaternaires du secteur Tadoussac - Les Escoumins (Côte nord - Québec): stratigraphie - cartographie - émersion, $5,000.00.

Université du Québec à Rimouski

Boczar-Karakiewicz, B. (INRS-Océanologie)
Formation of sand ridges on the continental shelf by progressive surface waves (with applications to the Scotian Shelf, Sable Island Bank), $7,600.00.

NEW BRUNSWICK

University of New Brunswick

Williams, P.F. (Geology)
Geological mapping in eastern Notre Dame Bay, Newfoundland, $5,100.00.

NOVA SCOTIA

Acadia University

Barr, S.M. (Geology)
Mineralization associated with granitoid intrusions, Cape Breton Island, Nova Scotia, $6,000.00.

University College of Cape Breton

Zodrow, E.L. (Geology)
Refinement of the correlation between the Pictou/Morien Group and Silesian Pennant Measures, South Wales, $4,000.00.

Dalhousie University

Boyd, R. (Geology)
Quaternary marine sedimentology of the Scotian Shelf, $5,000.00.

Gibling, M.R. (Geology)
Sulphur isotope analysis as a tool to investigate the source of sulphur in Sydney coals, Nova Scotia, $3,700.00.
Huntley, D.A. (Oceanography)
Coastal waves, currents, and sediment motion, $9,000.00.
Louden, K.E. (Oceanography)
Arctic heat flow, $8,550.00.

Technical University of Nova Scotia

Sherwood, H.G. (Mining Engineering)
The application of geostatistics to the Sydney coalfield, Nova Scotia, $2,500.00.

NEWFOUNDLAND

Memorial University of Newfoundland

Barnes, C.R. (Earth Sciences)
Conodont biostratigraphy, thermal maturation, and lead/zinc mineralization, Lower Ordovician strata, western Newfoundland, $2,800.00.
Burden, E.T. (Earth Sciences)
Palynology of Mesozoic and Cenozoic outliers, Baffin Island, $15,000.00.
Hay, A.E. (Physics)
High frequency acoustic detection of suspended sand, $9,000.00.
Hodych, J.P. (Earth Sciences)
Paleomagnetism of Silurian volcanics of Newfoundland, $4,500.00.
Miller, H.C. (Earth Sciences)
Gravity investigations Burin Peninsula and Bonavista Peninsula, Newfoundland, $3,500.00.
Murthy, G.S. (Earth Sciences)
Paleomagnetic investigations of Paleozoic (and Precambrian) rock formations from the Island of Newfoundland and interpretation of results in terms of tectonics and magnetostratigraphy, $7,500.00.
Quinlan, G.M. (Earth Sciences)
The dynamic evolution of flexural basins, arches and domes, $12,500.00.
Rogerson, R.J. (Earth Sciences, Geography)
Glacial geology of the Nachvak Fiord area of Northern Labrador, $7,500.00.
Stevens, R.K. (Earth Sciences)
Graptolites of the Cow Head Group, Western Newfoundland, $3,000.00.
Williams, H. (Earth Sciences)
Geologic map and synthesis of entire Humber Arm Allochthon, $7,500.00.

Department of Energy, Mines and Resources Contracts Awarded to Canadian Universities 1985-86/
Contrats accordés aux universités canadiennes par le ministère de l'Énergie, des Mines et des Ressources, 1985-86

BRITISH COLUMBIA

University of British Columbia

Armstrong, R.L. (Geological Sciences)
Zircon dating of cordilleral igneous rocks, $24,999.00.
Study of the absolute age of young volcanic centres in the Cordilleran, $13,140.00.
Barnes, M.A. (Geological Sciences)
Early diagenetic formation of aromatic hydrocarbons in recent sediments, $12,000.00.
Bustin, R.M. (Geological Sciences)
Investigation of sedimentary rock maturation profile in northern Yukon and Northwest Territories, $16,466.00.
Clowes, R.M. (Geophysics and Astronomy)
Acquisition of crustal refraction data on Juan de Fuca Ridge, $23,408.00.
Study of upper crustal structure below Hecate Strait from airgun/ocean bottom seismograph data, $14,833.00.
Ellis, R.M. (Geophysics and Astronomy)
Recording and compilation of deep crustal seismic refraction data near the Peace River Arch in Alberta and British Columbia, $72,000.00.
Seismographic data collection at selected sites on the west coast of British Columbia, $10,975.00.
Goodwin, C.I. (Geochronology Laboratory)
Lead isotope analyses of galena or comparable Pb-rich samples, $5,040.00.
Greenwood, H.J. (Geological Sciences)
Study of the evolution of pressure and temperature in the Cariboo and Barkerville Terranes, Quesnel Lake, British Columbia, $11,755.00.
Development of an internally-consistent thermodynamic data base and software for the calculation of stable phase diagrams, $162,631.00.
Mackay, J.R. (Geography)
Study of the development of permafrost and ground ice – western Arctic coast region, $52,794.00.

Simon Fraser University

Roberts, A. (Geography)
Comparison of LANDSAT 5 and airborne multispectral systems for coastal remote sensing, $6,000.00.

ALBERTA

University of Alberta

Erdmer, P. (Geology)
Mapping of metamorphic and plutonic rocks of the Precambrian terrain of the northern Long Range Mountains, Newfoundland, $66,179.00.
Jones, F.W. (Physics)
Detailed study of geothermal environment of area included in NN12 – Edmonotn, $45,233.00.
Continuation study of existing temperature data from Canadian sedimentary basins – phase V, $74,000.00.
Lambert, R. (Geology)
Analysis of Mesozoic volcanic and related rocks from eastern Canadian continental margins, $6,963.00.
Rutter, N.W. (Geology)
Geochronological analysis of Beaufort Sea region sediment samples, $47,350.00

University of Calgary

Cook, F. (Geology and Geophysics)
Reflection seismic study of Columbia River fault and related structures, $25,000.00.
Hutchean, L (Geology and Geophysics)
Relationships of authigenic mineralogy water chemistry, hydrocarbon chemistry and overpressuring in the Venture field, Scotian Shelf, $29,833.00.
Lawton, D.C. (Geology and Geophysics)
Technological and methodological developments to improve the acquisiton and processing of high resolution shallow digital seismic reflection data, $62,202.00.

Nakiboglo, S.M. (Geology and Geophysics)
Thermo-mechanical models of selected sedimentary basins in Canada, $7,020.00.
Simony, P. (Geology and Geophysics)
Structural study along and adjacent to the southern Rocky Mountain Trench, British Columbia, $12,554.00.
Spencer, R. (Geology and Geophysics)
Collection and identification of rock samples in deep alpine terrain, $2,300.00.

SASKATCHEWAN

University of Regina

Potter, J. (Geology)
Study of the organic petrography and thermal maturity of Mesozoic rocks in southern Saskatchewan, $20,000.00.
Vigrass, L. (Energy Research)
Modelling of deep groundwater flow in Saskatchewan – phase II, $48,057.00.

University of Saskatchewan

Hajnal, Z. (Geological Sciences)
Recording and compilation of deep crustal refraction data near the Peace River Arch in Alberta and British Columbia, $76,770.00.
Polar Continental Shelf Project (PCSP), Ice Island Project, seismic reflection profiling, $66,434.00.
Study of the seismic reflection data gathered during the 1983 season from the Ice Island Seismic Reflection Project, $84,017.00.
Compilation of a sonic log for part of the Arctic Archipelago with extrapolation and interpretation in the vicinity of the Haughton Impact Structure, Devon Island, $13,791.00.

MANITOBA

University of Manitoba

Ayres, L.D. (Earth Sciences)
Characterization of mafic-ultramafic plutonic rocks in the Flin Flon – Snow Lake area, Manitoba – phase II, $26,215.00.
Brisbin, W.C. (Earth Sciences)
Characterization of the internal structure and mineralization of the Falcon Lake stock, southeastern Manitoba, $18,180.00.
Turnock, A.C. (Earth Sciences)
Cryptic variation of primary assemblage minerals in the Fox River layered complex, northeastern Manitoba – phase II, $12,700.00.

ONTARIO

Carleton University

Bell, K. (Geology)
Strontium isotope analysis of evaporites from offshore wells, Eastern Canada, $9,188.00.
Smith, M.W. (Geography)
Investigation of permafrost and climate change – phase III, $21,602.00.
Watkinson, D.H. (Geology)
Study of alteration zone at Snow Lake, Manitoba, $23,424.00.
Investigation of the geological controls on the distribution and genesis of chromite and platinum group elements in selected parts of the Bay of Islands, $15,002.00.
Yole, W. (Geology)
Petrographic and stratigraphic analysis of the Hibernia Member (Missassauga Formation) in the Hibernia Field, Jeanne D'Arc Basin, $5,230.00.

McMaster University

McNutt, R.H. (Geology)
$^{87}Sr/^{86}Sr$ values of groundwater and the minerals of the enclosing host rock, Atikokan, Ontario, $14,326.00.
Schwarcz, H.P. (Geology)
Determination of the age of teeth by electron spin resonance date method, $3,170.00.

University of Ottawa

Veizer, J. (Geology)
Sulphur isotope analysis of evaporates from offshore wells, eastern Canada, $3,780.00.
Determination and paleoenvironmental/stratigraphic evaluation of the stable isotope composition of carbonate from deep-sea cores and other selected samples, pertinent to the Boundary Dispute Program, $29,500.00.

Queen's University

Dixon, J.M. (Geological Sciences)
Study of stratigraphy and structure along the eastern boundary of the main ranges in southern Kananaskis map area, British Columbia, $16,070.00.
Hanes, J.A. (Geological Sciences)
$^{40}Ar/^{39}Ar$ geochronology and isotopic thermal history of Sigma Mine, Quebec, $6,000.00.
Mason, R. (Geological Sciences)
Investigation of geological controls of gold mineralization in the McIntyre-Hollinger Mines, Timmins, Ontario, $21,000.00.

University of Toronto

Edwards, R.N. (Physics)
"Ice-Moses": An Arctic test of a new offshore electrical method for detecting permafrost, $80,400.00.
Garland, G.D. (Physics)
Earthquake studies in the Beaufort Sea, $14,710.00.
Kieser, W.E. (Isotrace Laboratory)
Radiocarbon analysis of shell material measurements, $480.00.
Analysis of organic samples by means of Carbon-14 dating with Accelerator Mass Spectrometry, $20,000.00.
Naldrett, A.J. (Geology)
Isotopic trace element and metallogenic studies of the Nipissing Diabase, Sudbury-Cobalt region, Ontario, $44,507.00.
Robin, P.Y. (Earth and Planetary Sciences)
Study of problems of structural geology in the Thompson Belt, $29,989.00.
Study of problems of structural geology in the Thompson Belt – continuation, $29,981.00.
Radiocarbon dating of shell samples, $5,184.00

University of Waterloo

Fritz, P. (Earth Sciences)
Isotopic analyses of organic samples, $6,000.00.

University of Western Ontario

Beck, A.E. (Geophysics)
High-density, high accuracy temperature logs, $4,000.00.
Kerrich, R. (Geology)
Oxygen isotope and fluid inclusion of the Eye Dashwa pluton, $12,939.00.
Mereu, R.F. (Geophysics)
Polar Continental Shelf Project (PCSP), Ice Island Project, seismic reflection profiling, $64,720.00.
Research and development of non-standard seismic reflection data, $20,800.00.

QUÉBEC

Université de Montréal

Mamet, B. (Geology)
Microfacies analysis, $14,557.00.

Université du Québec à Montréal

Prichonnet, G. (Earth Sciences)
Petrographic tracing of glacial dispersion in the Mont-Joli, Lac Matapédia and Lac Humqui regions of Québec, $5,829.00.

NEW BRUNSWICK

University of New Brunswick

Burke, K.B.S. (Geology)
1985 Miramichi, New Brunswick microearthquake survey, $23,065.00.
White, J. (Geology)
Microstructure studies on the Hollow and Cobequid Fault zones in Nova Scotia, $11,000.00.
Williams, P.F. (Geology)
Structural/geometrical analysis of the Heath Steele's B-zone and surroundings, Newcastle, New Brunswick, $9,900.00.
Geological history of gold-bearing veins in Nova Scotia, $95,355.00.
Study the diagenesis and structure of the Albert Formation, New Brunswick, $44,877.00.

NOVA SCOTIA

Dalhousie University

Chatt, A. (Trace Analysis Research)
Analytical measurements for certification of OKA-2, $2,000.00.
Clarke, D.B. (Geology)
Study the structure and petrology of the Mont Alberta peridotite, Gaspé, $15,842.00.
Gibling, M. (Geology)
Update and expansion of well information data base, $3,750.00.
Jamieson, R., Zentilli, M. (Geology)
Geological and metallogenic studies of the Western Cape Breton Highlands volcanic-sedimentary complex, $94,964.00.
Medioli, F. (Geology)
Agglutinated FORAM file of Paleogene petroleum basins and comparison to recent deep sea fauna, $6,225.00.
Muecke, G. (Geology)
Analysis of the petrology of Mesozoic volcanic rocks of the Sverdrup Basin, $23,000.00.
Splitting of hard rock core from Hudson 85-027, $621.00.
Robinson, P.T. (Marine Biology)
Chemical analysis of Cyprus drill hole samples, $9,180.00.
Scott, D.B. (Geology)
Stable isotope analysis of benthic Foraminifera, $1,455.00.
Scott, D. (Centre for Marine Geology)
Stable isotope analysis of Foraminfera from the Labrador Shelf, $1,746.00.
Zentilli, M. (Geology)
Sr-isotopic studies of rock and mineral samples in the Shubenacadie Basin, Nova Scotia, $7,010.00.
Lithogeochemical study of the Goldenville-Halifax transition zone, Meguma Group, Nova Scotia, $56,684.00.

University College of Cape Breton

Nicholson, C. (Mineral Technology)
Calibration of cone indentor to traditional uniaxial compressive strengths of Carboniferous strata in the Sydney Coalfield, $11,140.00.

St. Mary's University

Murney, G. (Geology)
Establish Jurassic biostratigraphy of areas of Portugal from samples collected on Geological Survey of Canada field trips in 1982 and 1984, $1,650.00.
Piper, G. (Geology)
Geochemical analysis of igneous rocks from the Brant and Mallard offshore wells, Grand Banks, $4,790.00.

NEWFOUNDLAND

Memorial University of Newfoundland

Barnes, C.R. (Earth Sciences)
Conodont biostratigraphy and thermal maturation (CAI) values of Paleozoic carbonates that host lead-zinc mineralization, western Newfoundland, $15,352.00.
Barrie, V. (C-Core)
Study late Pleistocene and Holocene sedimentation and iceberg flux in the sediments from the northeastern Newfoundland Shelf, $11,945.00.
Blenkinsop, J. (Geology)
Lead isotope analyses of galena or comparable Pb-rich samples. Lead isotope analysis of pyrite or comparable low-Pb samples, $6,213.00.
Calon, T.J. (Earth Sciences)
Detailed structural geology study of the Buchans Mine area, Newfoundland, $23,358.00.
Determination of the geological structure and deformational history of selected areas containing chromite deposits in the Bay of Islands Ophiolite Complex, Newfoundland, $39,979.00.
Fryer, B.J. (Earth Sciences)
Chemical and petrographic studies of iron formations and associated rocks in Labrador, $28,956.00.
Hale, J.E. (Earth Resource Research)
Groundwater study area of Newfoundland Zinc Mines Incorporated, Daniel's Harbour, Newfoundland, $11,695.00.

McLaren, P. (C-Core)
Determination of optimum sample criteria for the purposes of establishing sediment trends, $10,920.00.
Pereira, C. (C-Core)
Geochemical and mineralogial studies in the Arctic Archipelago, $4,448.00.
Rivers, T. (Earth Sciences)
Study the petrography and structure of plutonic rocks from the Northern Long Range, $8,396.00.
Staveley, M. (Dean of Arts)
Historical seismicity of Newfoundland – a study – phase II, $4,734.00.
Wilton, D.H.C. (Earth Sciences)
Study of the metallogeny of the central Labrador mineral belt, $46,070.00.

Department of Indian and Northern Affairs Canada, Research Contracts 1985-86/ Ministère de les Affaires indiennes et du Nord Canada, contracts de recherche 1985-86

ONTARIO

Carleton University

Donaldson, J.A. (Geology)
Stratigraphic, sedimentological, volcanological and mineral deposit evaluations, East Arm, Great Slave Lake.

Ottawa University

Fyson, W.K. (Geology)
Structural studies in the Slave Province.
Fyson, W.K. and Cullen, R. (Geology)
Mapping of the Cameron Lake River volcanic belt.
Hogarth, D. (Geology)
Investigations of Martin Frobisher's mining sites, Baffin Island.

St. Onge, D. (Géographie)
Surficial-Quaternary geology of Glacial Lake, Coppermine and adjacent systems.

Queen's University

Helmstaedt, H. (Geological Sciences)
Compilation and field checking of detailed geological maps, Yellowknife Volcanic Belt.

Toronto University

Goodwin, A.M. (Geology)
Geochemical investigations of Slave Province volcanic belts.
Schwerdtner, W.M.
Structural investigations in the Arctic Islands.

Western Ontario University

Kerrich, R. (Geology)
Evaluation of auriferous shear zones in the Western Granodiorite.

NEWFOUNDLAND

Memorial University of Newfoundland

Rivers, T. (Earth Sciences)
Geological field work, Mirage Islands.

U.S.A.

Washington University, St. Louis

Bowring, S.A.
Geochronological studies in the Bear and Slave Provinces.

Polar Continental Shelf Project Field Support Non-Governmental Activities 1985-86/ Plateau continental polarie en faveur d'activités non gouvernementales pour 1985-86

ALBERTA

Alberta University

England, J.
Quaternary glaciation, northern Ellesmere Island, District of Franklin.

Calgary University

Hills, L.V.
Paleontology, Banks, Meighen and Axel Heiberg Islands, District of Franklin.
Jeffries, M.O.
Glaciology, Oceanography, northern Ellesmere Island, District of Franklin.
Oldershaw, A.E.
Stratigraphy, sedimentology and paleoecology, southwestern Ellesmere Island, District of Franklin.

SASKATCHEWAN

Saskatchewan University

Basinger, J.F.
Paleobotany, Ellesmere and Axel Heiberg Islands, District of Franklin.

ONTARIO

Carleton University

Michel, F.A.
Volcanic geology, Ellesmere and Axel Heiberg Islands, District of Franklin.

Laurentian University

Long, D.G.F.
Sedimentology and stratigraphy, northeastern Ellesmere Island, District of Franklin.

McMaster University

Risk, M.J.
Benthics geology, Tuktoyaktuk, District of Mackenzie.
Geology of southern Baffin Island, District of Franklin.

Ottawa University

Dixon, O.A.
Sedimentology and paleontology, Cornwallis, Devon and Baillie Hamilton Islands, District of Franklin.
French, H.M.
Geomorphology – Permafrost, northern Yukon and Mackenzie Delta, District of Mackenzie.
Keer, D.E.
Paleontology, Richardson and Rae Rivers.

Queen's University

Dyke, L.
Bedrock frost heaving, Melville Island, District of Franklin.

Sir Sanford Fleming College

Ritchie, J.C.
Lake sediments, lower Horton River, Paulatuk.
Watts, S.H.
Bedrock weathering, British Mountains, Yukon.

Toronto University

Halls, H.C.
Geomorphology, Ellesmere and Axel Heiberg Islands, District of Franklin.

Lewkowicz, A.G.
Geomorphology – Permafrost, Tuk, Mackenzie Delta, District of Mackenzie.
Miall, A.D.
Sedimentology and stratigraphy, Buchanan Lake.
Mulligan, K.R.
Hydrology, Mackenzie Delta, District of Mackenzie.
Schwerdtner, W.M.
Stratigraphy, northwestern Ellesmere Island, District of Franklin.

Trent University

Adams, W.P.
Glaciology – mass balance, Axel Heiberg Island, District of Franklin.

Western Ontario University

King, R.H.
Geomorphology, Truelove Inlet.
Lenz, A.C.
Paleontology, Cornwallis and northwestern Melville Islands, District of Franklin.

Windsor University

Jacobs, J.D.
Geobotany – archaeology, Nettilling Lake, Baffin Island, District of Franklin.

NOVA SCOTIA

Dalhousie University

Williamson, M.C.
Volcanic geology, Ellesmere and Axel Heiberg Islands, District of Franklin.

NEWFOUNDLAND

Memorial University of Newfoundland

Burden, E.
Palynology and sedimentology, southeastern Baffin Island, District of Franklin.

U.S.A.

Arizona University

Elliott, D.K.
Stratigraphy, Somerset and Prince of Wales Islands, District of Franklin.

Carnegie Museum

West, R.M.
Paleontology, eastern Arctic Islands.

John Hopkins University

De Poar, D.
Structural geology, Ellesmere Island, District of Franklin.

Massachusetts University

Bradley, R.S.
Sedimentology, northern Ellesmere Island, District of Franklin.

Purdue University

Zinsmeister, W.J.
Paleontology, Strathcona Fiord, Banks Island, District of Franklin.

Washington University

Washburn, A.L.
Periglacial features, Resolute, Cornwallis Island, District of Franklin.

UNITED KINGDOM

Bristol University

Walford, M.,
Glaciology – radio – echo sounding, Ellesmere Island, District of Franklin.

JAPAN

Hokkaido University

Fujino, K.
Ice coring, paleoclimatology, Tuktoyaktuk, District of Mackenzie.

Ontario Geological Survey, Geoscience Research Grants 1985-86/
Commission géologique de l'Ontario subventions de recherche en sciences de la terre pour 1985-86

Brock University

Williams, H.R.
Structural studies around zones of shear in the Wabigoon Subprovince, $17,208.00.

Carleton University

Donaldson, J.A.
Study of sedimentary rocks and strata-bound mineralization in the Cobalt region of northeastern Ontario, $21,319.00
Moore, J.M.
Study of chloritoid in altered volcanic rocks, $4,264.00
Watkinson, D.H.
The geological setting and genesis of the Cameron Lake deposits, $16,522.00.

Lakehead University

Kissin, S.A.
Genesis of pegmatites in the Quetico Gneiss Belt of northwestern Ontario, $10,440.00.

McMaster University

Risk, M.J.
Sedimentology of the Long Rapids Formation, $17,055.00.
Schwarcz, H.P.
Investigation of cyanide in gold deposits, $28,967.00.

Ottawa University

Rust, B.R.
Sedimentology of the Bar River Formation, Huronian Supergroup, Ontario, $8,261.00.

Westland, A.
Development of analytical methods for trace lanthanides, $8,604.00.

Queen's University

Dalrymple, R.W.
Sedimentology of the Cambro-Ordovician sandstones of eastern Ontario, $1,195.00.
Hodgson, C.J.
The structural – lithological environment of the Porcupine – Destor and Kirkland Lake-Larder Lake Breaks, and associated gold mineralization, Abitibi Belt, $33,747.00.
Nichol, I.
Geochemical exploration for gold, $27,867.00.

Toronto University

Evensen, N.M.
A study of the petrogenesis of mineralized horizons in the Uchi Lake greenstones, $19,120.00.
Naldrett, A.J.
Petrologic, isotopic and paleomagnetic investigations of the Nipissing Diabase, $15,439.00.
Rucklidge, J.C.
The role of carbonaceous materials in precious metal deposits, $22,275.00.
Schwerdtner, W.M.
Structural signature and tectonic history of deformed gold-bearing rocks in northwestern Ontario, $38,240.00.
Spooner, E.T.C.
A study to analyse the composition of the mineral veins, rock relationships, types of mineralization, metamorphic alteration and structural relationships found in rocks at former gold mines in the Timmins area, $17,208.00.

Strangway, D.W.
Magnetotelluric mapping of the Porcupine - Destor Fault, $26,308.00.
York, D.
Dating of Ontario's gold deposits, $[illegible]779.00.

Waterloo University

Dusseault, M.B.
Study of clay minerals in southwestern Ontario oil reserves, $7,409.00.
Exploration for buried granular aggregates by Remote Sensing techniques, $33,460.00.
MacQueen, R.W.
Geochemical studies of formation waters, Paleozoic strata of southwestern Ontario, $23,900.00.

Western Ontario University

Fyfe, W.S.
Study of metal accumulation in micro-organisms as potential indicators of mineralization, $28,680.00.
Hicock, S.R.
Study of anomalous carbonate till near Marathon, Ontario - origin and application, $17,825.00.
MacRae, N.D.
Compositinal characteristics of pyrite in barren and gold – mineralized veins, $8,121.00.

Windsor University

Hudec, P.P.
Effect of grain size on calcining properties of carbonates, $12,787.00.

Natural Sciences and Engineering Research Council Canada Strategic Grants 1985-86/Subventions thématiques données par le Conseil de recherches en sciences naturelles et en génie du Canada 1985-86

ALBERTA

University of Alberta

Scott, J.D. (Civil Engineering)
Core samples for oil sands and heavy oil formations, $61,800.00.
Toth, J. (Geology)
Development of a hydrogeological approach to petroleum exploration, $105,020.00.

ONTARIO

McMaster University

Schwarcz, H.P., Kramer, J.R. (Geology)
Stable isotopic tracing of sources of acid rain, $40,000.00.

Queen's University

Young, R.B., Hutchins, D.A. (Geological Sciences)
Rock burst investigations using concurrent tomographic imaging and acoustic emission techniques, $60,000.00.

University of Toronto

Edwards, R.N. (Physics)
The development of sea floor electromagnetic mapping methods, $31,500.00.

NOVA SCOTIA

Dalhousie University - EMR - Bedford Institute

Louden, K.E. (Oceanography), Judge, A.
Arctic heat flow, $89,300.00.
Scott, D.B., Mayer, L., Medioli, F.S. (Marine Geology), Mudie, P.J.
Quaternary studies of North Atlantic ODP sites, $63,000.00.

NAME DEPARTMENT UNIVERSITY UNIQ#/APPL#/GR#	1985-86
Achab,A. INRS-Géoress. Québec - INRS	Chitinozoaires de l'Ordovicien et du Silurien inférieur du Québec
Agterberg,F.P. Geology Ottawa	Development of mathematical models for stratigraphic correlation
Aldridge,K.D. Earth & Atmos. Sc. York	1) Laboratory geophysical fluid dynamics 2) Inversion of time domain induced polarization data
Allard,M. Géographie Laval	Quaternaire et environnement côtier au sud de la Baie d'Ungava
Anderson,G.M. Geology Toronto	Metasomatic and ore-forming solutions
Archambault,G. Sc. appliquées Québec-Chicoutimi	Etudes géomécaniques et analyse structurale des zones et ceintures de cisaillement (shear zones and shear belts) de la région de Chibougamau, Québec
Armstrong,R.L. Geological Sciences British Columbia	Cordilleran geochronometry, radiogenic isotopes, and petrology
Ayres,L.D. Earth Sciences Manitoba	Volcanological investigations of the Proterozoic Flin Flon volcano, Manitoba and Saskatchewan
Baadsgaard,H. Geology Alberta	Isotope geology of: selected crustal areas, time-scale horizons, uranium mineralisation and potash salt deposition
Bachinski,S.L.W. Geology New Brunswick	Nature, origin, and tectonic significance of minettes and related lamprophyres
Bailey,R.C. Physics/Geology Toronto	Electromagnetic sounding of the earth's crust and mantle
Bailey,W.G. Geography Simon Fraser	Measurement and modelling of energy balance regimes
Barendregt,R.W. Geography Lethbridge	Paleomagnetic investigation of quaternary deposits in the Western Canadian Prairies and the Western Canadian Arctic
Barker,J.F. Earth Sciences Waterloo	Aspects of organic and bio-geochemistry in the groundwater environment
Barnes,C.R. Earth Sciences Memorial	Lower Paleozoic conodonts, Ordovician chronostratigraphy, and thermal maturation studies
Barr,S.M. Geology Acadia	Petrology, petrogenesis, and economic aspects of igneous rocks from Nova Scotia, New Brunswick, and Thailand
Bayliss,P. Geology & Geophys. Calgary	Applied crystallographic-mineralogy
Beales,F.W. Geology Toronto	Stratigraphy and stratabound mineral deposits
Beaumont,C. Oceanography Dalhousie	Geodynamics of sedimentary basins and mountain belts
Beck,A.E. Geophysics Western Ontario	Geothermal problems, pure and applied
Bell,K. Geology Carleton	Isotope geochemistry of carbonatites and the sub-continental upper mantle
Bello,R.L. Geography York	Experimental evaluation of actual evapotranspiration
Binda,P.L. Geology Regina	1) Stratiform copper occurrences of the Belt in Alberta and British Columbia 2) Depositional environment of the Battle Formation in Saskatchewan
Blenkinsop,J. Geology Carleton	Isotope geochemistry of kimberlites and their xenoliths
Boczar-Karakiewic,B. INRS-Océanolog. Québec - INRS	Interaction of shallow-water waves and bottom topography
Bonn,F.J. Géographie Sherbrooke	Télédétection des propriétés thermiques de la surface de la terre
Borradaile,G.J. Geology Lakehead	Field and experimental studies of geological structures of Canadian Shield
Bouchard,M.A. Géologie Montréal	Sédimentologie et composition des sédiments glaciaires sur le Bouclier Canadien à l'est de la Baie d'Hudson
Bourque,P.A. Géologie Laval	Evolution diagénétique des ensembles à carbonates siluro-dévoniens du Bassin de Gaspésie
Bowen,A.J. Oceanography Dalhousie	Dynamics of waves, currents and sediments
Boyd,R. Geology Dalhousie	Coastal sedimentation models
Brand,U. Geological Sciences Brock	Carbonate diagenesis and metals and hydrocarbon exploration geochemistry
Brookfield,M.E. Land Resource Sc Guelph	Studies of recent and ancient desert deposits
Brooks,C. Geology Montréal	Isotopic and chemical studies of early crustal processes in the Precambrian Shield of Canada
Brown,A.C. Génie minéral Ecole Polytechnique	Etude métallogénique des gisements stratiformes de métaux non-ferreux. Metallogenic studies of stratiform non-ferrous metal deposits
Brown,R.L. Geology Carleton	Structural and tectonic investigations in the Canadian Cordillera

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Bryan,R.B. Geography Toronto	Rill initiation, gully development and drainage basin processes in semi-arid environments
Burden,E.T. Earth Sciences Memorial	Mesozoic and Cenozoic palynology of the North Atlantic borderlands
Burling,R.W. Oceanography British Columbia	Numerical simulations of circulations in Burrard Inlet and Indian Arm
Bustin,R.M. Geological Sciences British Columbia	Structure, sedimentology, and petrology of coal measures in Western and Arctic Canada
Buttle,J.M. Geography Trent	Monitoring hillslope soil moisture fluxes
Caldwell,W.G.E. Geological Sciences Saskatchewan	Biostratigraphic studies in the cretaceous system of western Canada
Calvert,S.E. Oceanography British Columbia	Geochemistry of marine sediments
Cameron,B.W. Geology Acadia	Evolution, paloecology and depth distribution of fossil marine microbial endoliths
Cameron,E.M. Geology Ottawa	Isotopic stratigraphy of precambrian mineralized basins
Campbell,F.A. Geology & Geophys. Calgary	Geochemistry, mineralogy and isotope studies of rocks and ores
Campbell,I.A. Geography Alberta	Erosion rates, sediment delivery ratios and the evolution of the Red Deer badlands
Campbell,I.H. Earth/Planet. Sci. Toronto	Layered intrusions and their ore deposits
Cannon,W.H. Earth & Atmos. Sc. York	VLBI system development/application of VLBI to geodesy and geodynamics
Carmichael,C.M. Geophysics Western Ontario	Geomagnetism
Carmichael,D.M. Geological Sciences Queen's	Metamorphic studies in Canada
Carroll,R.L. Redpath Museum McGill	Evolution and functional anatomy of Paleozoic and Early Mesozoic reptiles
Cerny,P. Earth Sciences Manitoba	Mineralogy, petrology, and genesis of granitic pegmatites
Chao,G.Y. Geology Carleton	1) Phase relations in the condensed systems Pd-Bi-Sb, Pd-Bi-Te, Pt-Bi-Sb, and Pt-Bi-Te 2) Mineralogy of the nepheline syenite, Mont St-Hilaire, Québec
Charlesworth,H.A.K. Geology Alberta	Computer-based structural analysis of coal-bearing and adjacent strata, Rocky Mountain Foothills, Central Alberta
Chatterton,B.D.E. Geology Alberta	Taxonomic, paleoecologic, biostratigraphic and biogeographic studies of paleozoic trilobite and conodont faunas of Canada
Cheel,R.J. Geology Brandon	A detailed study of laminae in sands and sandstones
Cherry,J.A. Earth Sciences Waterloo	1) Groundwater origin, age and diffusion effects in thick clayey deposits 2) Contaminant plume development in unconfined sand aquifers
Chesworth,W. Land Resource Sc Guelph	Geochemistry of soil-forming processes
Chouteau,M.C. Génie minéral Ecole Polytechnique	Application de la méthode magnétotellurique à la prospection minière
Chown,E.H.M. Earth Sciences Québec-Chicoutimi	Etude du socle tonalitique
Church,M.A. Geography British Columbia	Studies of hydraulics and sedimentation in alluvial rivers
Churcher,C.S. Zoology Toronto	Quaternary mammalian faunas, especially of Canada and Africa
Clark,A.H. Geological Sciences Queen's	Origin and delimitation of metallogenetic provinces and domains at convergent lithosphere plate boundaries
Clarke,D.B. Geology Dalhousie	Petrogenesis of igneous rocks: 1) Peraluminous granites 2) Kimberlites and K-sulphides 3) Basic volcanic rocks
Clarke,G.K.C. Geophys./Astron. British Columbia	Glaciology: field study, theory and instrumentation
Clarke,W.B. Physics McMaster	Investigations of isotope patterns in nature
Clowes,R.M. Geophys./Astron. British Columbia	Reflection/refraction seismology on land and at sea for crustal/upper mantle investigations
Cogley,J.G. Geography Trent	Continental palaeogeomorphology and palaeoclimatology
Cogulu,E. Géologie Ottawa	L'étude pétro-chimique du gîte nickelifère des Grands Lacs - Thunder Bay, Ontario
Collerson,K.D. Geology Regina	Isotopic constraints on crustal evolution in the Canadian Shield - North Atlantic Craton
Cook,F.A. Geology & Geophys. Calgary	Seismic reflection profiling in the Canadian Cordillera

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Copper,P. Geology Laurentian	Evolution and survival strategies of paleozoic brachiopods; ecological succession and mass extinction events in reef/carbonate ecosystems
Crocket,J.H. Geology McMaster	Applications of geochemistry to mineral deposit genesis
Crossley,D.J. Geological Sciences McGill	Physics of the earth's interior and inverse methods in applied geophysics
Crowley,P.D. Geology Toronto	Petrological pressure - temperature paths resulting from deep crustal deformation
Cruden,D.M. Geology Alberta	Stability of natural slopes in rock
Cumming,G.L. Physics Alberta	Systematics of Pb isotopic variations in ores and rocks - Crustal seismic studies
Dalrymple,R.W. Geological Sciences Queen's	Process sedimentology of nearshore and shallow marine clastics
David,M. Génie minéral Ecole Polytechnique	Développements géostatistiques pour l'inventaire et l'exploitation optimum des réserves
Davidson-Arnott,R.G.D. Geography Guelph	Morphodynamics of multiple parallel bars
Davis,A.M. Geography Toronto	The forest/tundra transition in n. Newfoundland
Deutsch,E.R. Earth Sciences Memorial	Rock magnetism and geological structure in the Newfoundland region
Dickinson,W.T. Engineering Guelph	Changes in hydrologic regime
Dimroth,E. Sc. appliquées Québec-Chicoutimi	Evolution of the Abitibi Belt
Dionne,J.C. Géographie Laval	Evolution des rives du Saint-Laurent (érosion-sédimentation)
Dixon,J.M. Geological Sciences Queen's	Centrifuge model and field studies in tectonics
Dixon,O.A. Geology Ottawa	Ordovician-devonian invertebrate fossils and sedimentary facies
Doig,R. Geological Sciences McGill	Geological applications of isotopic analyses, seismic hazard
Donaldson,J.A. Geology Carleton	Comparative studies of Precambrian sedimentary rocks
Donnay,G. Geological Sciences McGill	Relation between crystal structure of minerals and their physical and chemical properties
Dosso,H.W. Physics Victoria	Geomagnetic variations and electromagnetic modelling
Dostal,J. Geology Saint Mary's	Geochemistry and petrogenesis of some igneous rocks
Drake,J.J. Geography McMaster	Long term significance and short term variability of hydrologic process rates
Drapeau,G. INRS-Océanolog. Québec - INRS	Modélisation du transport des sédiments de fond dans la zone côtière basée sur des mesures "in situ"
Dreimanis,A. Geology Western Ontario	Origin of glacigenic deposits and stratigraphy of last glaciation in S.E. Canada
Dubois,J.M.M. Géographie Sherbrooke	Télédétection de l'évolution littorale et étude de la formation de flèches de plateforme rocheuse à l'Ile d'Anticosti
Duckworth,K. Geology & Geophys. Calgary	A study of the effect of low temperature (0 degrees C to -40 degrees C) on the electrical properties of rocks containing sulphide mineralization
Dunlop,D.J. Physics Toronto	Rock magnetism and paleomagnetism of continental and oceanic rocks and synthetic equivalents
Edgar,A.D. Geology Western Ontario	Petrology and geochemistry of mantle derived rocks with emphasis on source regions for alkaline and related magmas
Edmund,A.G. Geology Toronto	Osteology, stratigraphic relationships and systematic revision of giant armadillos, ground sloths and other Pleistocene vertebrates
Edwards,R.N. Physics Toronto	Electromagnetic exploration at sea with controlled sources-the moses experiments
Elias,R.J. Earth Sciences Manitoba	Ordovician solitary rugose corals of North America
Ellis,R.M. Geophys./Astron. British Columbia	Earthquake studies and refraction seismology
Elrick,D.E. Land Resource Sc Guelph	Transport phenomena in natural porous media
El-Sabh,M. Oceanography Québec-Rimouski	Circulation dynamics and mixing processes in estuaries
Emery,W.J. Oceanography British Columbia	Short term variability of wind and sea surface temperature patterns as inferred from geostationary satellite data
England,J. Geography Alberta	Quaternary glaciation, glacio-isostasy and paleoclimatic change, Northern Ellesmere Island

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Erdmer,P. Geology Alberta	Structural and metamorphic analysis of allochthonous terranes of central Yukon
Essex,G.C.R. Applied Math. Western Ontario	Climate theory
Evans,L.J. Land Resource Sc Guelph	Geochemistry of podzolic soil solutions
Evans,M.E. Physics Alberta	Quaternary paleomagnetic and archeomagnetic investigations
Evans,R.D. Environmental Stud. Trent	A study of major cation - trace metal interactions in lake sediments
Evensen,N.M. Geology Toronto	Analysis and modeling of isotopic variations in geologic systems
Fahey,B.D. Geography Guelph	Physical weathering mechanisms and weathering regimes in cold climates
Fahraeus,L.E. Earth Sciences Memorial	Conodontophorid paleobiology, histomorphology of conodonts and heloiont scales, and Lower Paleozoic chrono-and biostratigraphy
Farquhar,R.M. Physics Toronto	Lead isotope ratio variations
Farrar,E. Geological Sciences Queen's	Plate tectonic evolution of the Pacific Ocean basin and its margins - K-Ar geochronology and paleomagnetism
Farvolden,R.N. Earth Sciences Waterloo	Groundwater discharge phenomena applied to water resources assessment
Fawcett,J.J. Geology Toronto	Experimental and field based studies in igneous and metamorphic petrology
Ferguson,R.B. Earth Sciences Manitoba	Crystal-chemical and petrogenetic studies of the rock-forming feldspars and other minerals
Filion,L. Géographie Laval	Dynamique holocène des systèmes éoliens du Québec
Fleet,M.E.L. Geology Western Ontario	Crystal chemical and geochemical studies on earth materials
Fletcher,W.K. Geological Sciences British Columbia	Dispersion and sedimentological behaviour of gold in stream sediments
Ford,D.C. Geography McMaster	1) Groundwater flow and cavern genesis, B. Karst studies in Canada 2) U-series dating, stable isotopic, magnetic and organic studies of speleothems
Fowler,A.D. Sc. appliquées Québec-Chicoutimi	Geochemistry of archean shales, Chibougamau area, Québec
Fowler,A.D. Geology Ottawa	Geochemistry of archean shales, Chibougamau area, Québec
Fox,J.S. Geological Sciences McGill	Geochemistry of Besshi and Corbet-type massive sulphide ores
Fox,R.C. Geology/Zoology Alberta	Upper cretaceous and paleocene tetrapods from western Canada
Francis,D.M. Geological Sciences McGill	Origin and evolution of basic magmas in the upper mantle
Frape,S.K. Earth Sciences Waterloo	Fracture mineral geochemistry; water-rock interaction studies in crystalline rocks
Freeze,R.A. Geological Sciences British Columbia	Hydrogeologic conditions and economic constraints in engineering design
French,H.M. Geology/Geography Ottawa	Permafrost and related geomorphic studies, Western Arctic, Canada
Frind,E.O. Earth Sciences Waterloo	Mathematical modelling of flow and transport in hydrogeologic systems
Fritz,P. Earth Sciences Waterloo	Isotopic hydrology and isotope geochemistry, paleohydrology and paleoenvironments
Froese,E. Geology Carleton	Hydrothermal alteration of the Nicoba sulphide deposit, Manitoba
Fryer,B.J. Earth Sciences Memorial	The application of elemental and isotopic geochemistry to studying continental crustal processes and their associated mineral deposits
Fyfe,W.S. Geology Western Ontario	Geochemistry, tectonics and biosphere interactions
Fyson,W.K. Geology Ottawa	Structural patterns and tectonics of Precambrian metamorphic terrains
Gagnon,M.J. Sci. fondamentales Québec-Chicoutimi	Rôle des résidus ligneux dans le transport des ions métalliques
Gale,J.E. Earth Sciences Memorial	Factors controlling the movement of fluids through fractured argillaceous and crystalline rocks
Gardner,J.S. Geography Waterloo	Contemporary and recent sediment transfers in a small mountain basin
Gariepy,C. Sciences de la terre Québec-Montréal	Isotopic and trace element evaluation of continental crust development in archaean to recent terrains
Garrett,C.J.R. Oceanography Dalhousie	Physical oceanography

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Gauthier,M. Sciences de la terre Québec-Montréal	Métallogénie des gîtes de métaux usuels et précieux au Québec
Geurts,M.A. Géographie Ottawa	Palynostratigraphie et variations climatiques tardiglaciaires et postglaciaires
Ghent,E.D. Geology & Geophys. Calgary	Geochemical and petrologic study of metamorphism and diagenesis
Gibling,M.R. Geology Dalhousie	Continental deposits in carboniferous basins of Atlantic Canada
Gibson,I.L. Earth Sciences Waterloo	Volcanological and petrological processes operative in extensional regimes
Gilbert,R. Geography Queen's	Sedimentary processes in Arctic fiords
Gillham,R.W. Earth Sciences Waterloo	Contaminant transport in layered media
Gittins,J. Geology Toronto	Petrogenesis of alkalic rocks and carbonatites, related ores and the underlying mantle
Godwin,C.I. Geological Sciences British Columbia	Application of galena and rock lead isotope analyses to metallogeny of the Canadian Cordillera
Goodchild,M.F. Geography Western Ontario	Applications of fractals and related concepts in geographical data processing
Goodwin,A.M. Geology Toronto	Origin and development of earth's crust
Gough,D.I. Physics Alberta	Magnetovariation, magnetotelluric and paleomagnetic studies
Goulet,N. Sciences de la terre Québec-Montréal	Synthèse tectonique de la partie nord de la Fosse du Labrador
Granberg,H.B. Geography McGill	Digital modelling of permafrost-terrain relationships
Gratton,Y. Océanographie Québec-Rimouski	Low-frequency motions over strong topography
Gravenor,C.P. Geology Windsor	Pleistocene and pre-pleistocene glaciomarine sedimentation
Gray,D.M. Agricult. Eng. Saskatchewan	Simulation of hydrological processes
Gray,J. Physics Alberta	Stable isotope studies of tree rings, peat and cave deposits to determine past climate in Canada
Gray,J.T. Geography Montréal	Application of LANDSAT 5-MSS and TM data to terrain mapping in temperate and Arctic Québec
Greenhouse,J.P. Earth Sciences Waterloo	Geophysics of quaternary deposits and contaminated groundwater
Greenwood,B. Geology/Geography Toronto	Coastal hydrodynamics and sedimentation
Greenwood,H.J. Geological Sciences British Columbia	Geological phase equilibrium studies
Groenevelt,P.H. Land Resource Sc Guelph	Physical properties of soils under intensive cultivation
Grundy,H.D. Geology McMaster	The characterization and crystallization histories of minerals
Guha,J. Sc. appliquées Québec-Chicoutimi	Modélisation de l'évolution et de la mise en place des fluides minéralisateurs associés aux gîtes filoniens archéens
Gwyn,Q.H.J. Géographie Sherbrooke	Modélisation de la géomorphologie et des dépôts glaciaires à partir des images en bandes C et L
Hajnal,Z. Geological Sciences Saskatchewan	1) Seismic investigation of deep seated structures in Saskatchewan 2) Seismic investigation of Precambrian contact zones
Halden,N.M. Earth Sciences Manitoba	Geochemical and structural constraints on the evolution of the Churchill-Superior suture-zone in the vicinity of Split Lake, northern Manitoba
Hale,C.J. Geology McMaster	Laboratory simulation and paleomagnetic analysis of precambrian thermochemical remanent magnetizations
Hall,D.H. Earth Sciences Manitoba	Characteristics and development of crustal magnetic units in Manitoba and North-Western Ontario
Hall,J.M. Geology Dalhousie	The nature, structure and history of oceanic crust through drilling, geological and geophysical investigations
Hall,R.L. Geology & Geophys. Calgary	Taxonomy, biostratigraphy and biogeography of Middle Jurassic ammonites, Western Canada
Halls,H.C. Geology Toronto	Paleomagnetism of mafic igneous rocks
Hanes,J.A. Geological Sciences Queen's	Tectonothermal histories of orogenic terranes and greenstone belts by argon geochronology
Harris,S.A. Geography Calgary	Alpine environmental studies
Hattori,K. Geology Ottawa	Isotope study of Archean stratiform gold mineralization

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Hawthorne,F.C. Earth Sciences Manitoba	Crystal structure, a key to mineral classification and paragenesis
Hay,A.E. Physics Memorial	Coastal and continental shelf oceanography
Hayatsu,A. Geophysics Western Ontario	Study of initial argon by K-Ar isochron method
Hebert,R. Géologie Laval	Pétrologie comparée des roches ultramafiques et mafiques continentales et océaniques
Hein,F.J. Geology Alberta	Facies models for subaerial and deep-water slopes and shallow marine settings
Helmstaedt,H. Geological Sciences Queen's	Fabrics of metamorphic rocks, tectonic settings of mineral deposits, Kimberlites and their xenoliths
Hendershot,W.H. Ren. Resources McGill	Soil investigation in Québec
Heroux,Y. INRS-Géoress. Québec - INRS	Minéralisations et matières organiques (Zn, Pb, Cu, Ag) de l'Archéen et du Phanérozoïque
Hesse,P.R. Geological Sciences McGill	Evolution of sedimentary basins on modern and ancient continental margins (diagenesis and low-grade metamorphism, tectonic setting)
Hickin,E.J. Geography Simon Fraser	Recent geomorphic control of sediment and river activity in the coastal mountains of British Columbia
Hicock,S.R. Geology Western Ontario	Glacial geology applied to mineral exploration in mountainous terrain
Hill,A.R. Geography York	The role of saturated riparian areas in regulating nitrogen transport from land surfaces into streams
Hillaire-Marcel,C. Géo isoto & géochr Québec-Montréal	Hydrologie, paléohydrologie isotopiques et paléoclimats continentaux
Hiscott,R.N. Earth Sciences Memorial	Sedimentation along ancient continental margins
Hodgson,C.J. Geology Queen's	Metallogeny of precious metal and lithophile element ore environments
Hodych,J.P. Earth Sciences Memorial	Effect of stress on magnetization of rock; paleomagnetism of appalachian Newfoundland
Hofmann,H.J. Geology Montréal	Precambrian and Lower Proterozoic paleontology and stratigraphy
Hogarth,D.D. Geology Ottawa	Petrogenesis of carbonatites, fenites and skarns in the Ottawa Valley. Petrology of Martin Frobisher's "black ores", Baffin Island
Holm,P.E. Geology Windsor	Thermotectonic discrimination and fabric analysis of Grenville metamorphic rocks
Hopkins,J.C. Geology & Geophys. Calgary	Petroleum geology of Mesozoic channel systems in the western interior
Howard,K.W.F. Physical Science Toronto	The application of hydrochemistry to the evaluation of hydrogeological conditions in superficial Quaternary deposits
Howarth,P.J. Geography Waterloo	Landsat and airborne digital data for studying the physical environment
Hron,F. Physics Alberta	Numerical modelling of seismic waves in complex geological structures
Hubert,C. Géologie Montréal	Tectonique et stratigraphie des terrains archéens de l'Abitibi entre Rouyn et Val d'Or, Québec
Huntley,D.A. Oceanography Dalhousie	Nearshore processes and boundary layer dynamics
Hutcheon,I.E. Geology & Geophys. Calgary	Rock-water-organic reaction sequences during diagenesis
Hynes,A.J. Geological Sciences McGill	Orogenic core-zones - the Labrador Trough at 58 degrees N
Ingram,R.G. Oceanography McGill	Interfacial processes in coastal and estuarine regions
James,N.P. Earth Sciences Memorial	Facies anatomy and diagenetic evolution of early paleozoic carbonates
Jamieson,R.A. Geology Dalhousie	Metamorphic and tectonic studies in the northern Appalachians
Jensen,O.G. Geological Sciences McGill	Geophysical analysis/Earth mechanics
Johnson,P.G. Geography Ottawa	Rock glacier formation by high magnitude low frequency processes
Jolly,W.T. Geological Sciences Brock	Igneous and metamorphic petrology of Huronian volcanic rocks, Ontario
Jones,B. Geology Alberta	Silurian-Devonian biostratigraphy of Western Canada and Arctic Canada
Jones,F.W. Physics Alberta	Electromagnetic induction, heat flow, and Earth tides and tilts
Jones,H.G. INRS - Eau Québec - INRS	Snow pack chemistry and melt water quality

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Justice,J.H. Geology & Geophys. Calgary	Array processing in exploration seismology
Kanasewich,E.R. Physics Alberta	Geophysical investigations of the crust and upper mantle
Karrow,P.F. Earth Sciences Waterloo	Quaternary stratigraphy and interglacial-interstadial environments
Kay,B.D. Land Resource Sc Guelph	Quantitative characterization of mass and heat transfer in freezing soils
Kelly,C.A. Biology Winnipeg	Consumption of H+ by nitrate and sulfate reduction in acidification + with J.W.M.Rudd(Manitoba)
Kerrich,R. Geology Western Ontario	Fluid transport in fault and thrust zones
King,R.H. Geography Western Ontario	Soils as palaeoenvironmental indicators
Kissin,S.A. Geology Lakehead	Crystal chemistry and stabilities of sulphide minerals
Kobluk,D.R. Earth Sciences Toronto	Cavities in Paleozoic reefs
Kramer,J.R. Geology McMaster	Speciation and particulate interaction in natural waters
Krebes,E.S. Geology & Geophys. Calgary	Seismic waves in anelastic media
Kretz,R. Geology Ottawa	Studies in the geochemical migration of elements
Krogh,T.E. Geology Toronto	Research in geochronology: techniques, tests and applications to geological problems
Krouse,H.R. Physics Calgary	Stable isotope fractionation studies
Kukalova-Peck,J. Geology Carleton	Morphology and evolution of paleozoic insects with reference to phylogeny of recent insects
Kyser,T.K. Geological Sciences Saskatchewan	Application of stable isotope compositions to geological problems
Lajoie,J. Géologie Montréal	Sédimentologie de dépôts siliciclastiques archéens, aphébiens, siluriens et récents
Lajtai,E.Z. Civil Engineering Manitoba	Fracture mechanisms in brittle rocks

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Lambert,R.S.J. Geology Alberta	Isotopic studies related to the evolution of the Cordillera and the Precambrian crust and mantle
Last,W.M. Science Manitoba	Sedimentology and geochemistry of saline lakes
Laurent,R. Géologie Laval	Pétrologie des ophiolites appalachiennes et de chypre
Lauriol,B.M.E. Géographie Ottawa	Géomorphologie Karstique des massifs calcaires du nord du Yukon
Lebel,J. Océanographie Québec-Rimouski	Hydrogéochimie des estuaires
LeBlond,P.H. Oceanography British Columbia	Ocean waves and coastal oceanography
LeDrew,E.F. Geography Waterloo	Investigation of the role of surface characteristics in climate processes using remotely sensed imagery
Legault,J.A. Earth Sciences Waterloo	Lower Paleozoic Palynostratigraphy of Canada
Lenz,A.C. Geology Western Ontario	Ordovician to Devonian paleontology, biostratigraphy, paleoecology and stratigraphy of Northern and Arctic Canada
Lesperance,P.J. Géologie Montréal	Stratigraphie de l'Ordovicien Supérieur au Dévonien Inférieur du Québec
Levinson,A.A. Geology & Geophys. Calgary	Exploration and environmental geochemistry
Lewis,J.E. Geography McGill	Surface energy exchange and land surface climatology in northern Baffin Bay
Lewkowicz,A.G. Geography Toronto	Measurement and simulation of permafrost degradation on slopes, Arctic Canada
Lowry,J.F. Geology Regina	Mylonitic rocks, allochthonous packages and suspect terranes in the early proterozoic Trans-Hudson Orogen, Saskatchewan
Locat,J.E. Géologie Laval	Inter-relations entre la nature, les processus de formation des dépôts argileux et leur comportement mécanique
Logan,A. Geology New Brunswick	Coral interactions in Holocene and Pleistocene reefs from the Caribbean
Long,B.F.N. INRS-Océanolog. Québec - INRS	Evolution du transport sédimentaire des estuaires de la Côte-Nord du golfe du St-Laurent
Long,D.G.P. Geology Laurentian	Sedimentology and stratigraphy of Precambrian sequences

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Longstaffe,F.J. Geology Alberta	Physico-chemical investigations of water-rock interaction in low-temperature environments
Lortie,G. Etudes nordiques Laval	Les diatomées dans les séquences holocènes tourbeuses et lacustres du Québec: analyse paléoécologique et biostratigraphique
Louden,K.E. Oceanography Dalhousie	Earth structure
Luckman,B.H. Geography Western Ontario	Little ice age in Jasper National Park and environs
Ludden,J.N. Geology Montréal	Geochemical studies of volcanic rocks of the Canadian Cordillera and recent basalt - pantellerite associations
Ludvigsen,R. Geology Toronto	Lower paleozoic trilobite biostratigraphy
Luk,S.H. Geography Toronto	Measurements of soil erodibility and rainfall erosion
MacDonald,G.M. Geography McMaster	Treeline plant population response to postglacial climatic change in N. Central Canada
Mackay,J.R. Geography British Columbia	Origin of permafrost and ground ice, Western Arctic Coast, Canada
Macko,S.A. Earth Sciences Memorial	Organic geochemistry of stable nitrogen isotopes
MacLean,W.H. Geological Sciences McGill	Field studies and phase equilibria studies on the genesis of massive and magmatic sulfide ores
Macqueen,R.W. Earth Sciences Waterloo	Carbonate-hosted lead-zinc deposits: sedimentology/Organic geochemistry of selected Canadian Paleozoic suites
MacRae,N.D. Geology Western Ontario	Quantitative analysis by SIMS and element fractionation modeling
Mahaney,W.C. Geography York	Quaternary history of Mount Kenya and the Virunga Mountains, Rwanda
Malpas,J.G. Earth Sciences Memorial	1) Magma chamber processes in the oceanic and continental lithospheres 2) Volcanic stratigraphy of the western Avalon Peninsula
Manet,B.L. Géologie Montréal	Microfaciès carbonatés du Paléozoïque; microfaune et microflore
Mandarino,J.A. Geology Toronto	Crystal chemistry and detailed mineralogy of: 1) Selenium and tellurium oxysalts; 2) Coexisting amphiboles, micas and apatites; 3) Titanium-bearing silicates
Mansinha,L. Geophysics Western Ontario	Earth dynamics/Exploration geophysics
Martignole,J. Géologie Montréal	Recherches pétrologiques et tectoniques dans la Province de Grenville
Martin,R.F. Geological Sciences McGill	Mineralogical and geochemical adjustments during rock-fluid interaction
Martini,I.P. Land Resource Sc Guelph	Quantitative studies of clastic sediments and rocks
Mason,B. Geological Sciences Queen's	The formation of ore deposits and crustal evolution in Canada and Southern Africa
Mathewes,R.W. Biolog. Sciences Simon Fraser	Late-quaternary vegetation and environmental changes in British Columbia
Mathews,W.H. Geological Sciences British Columbia	Cenozoic geology and geochronology, British Columbia
Mayer,L.A. Oceanography Dalhousie	High-resolution seismic stratigraphy
McCaughey,J.H. Geography Queen's	Energy and radiation balance studies on mature and thinned forests and logged areas
McGowan,C. Zoology Toronto	Phylogenetic relationships and functional anatomy within selected vertebrate groups, Recent and fossil
McGugan,A. Geology & Geophys. Calgary	1) Permian conodont biostratigraphy 2) Cretaceous foraminiferal biostratigraphy 3) Recent foraminifera
McNutt,R.H. Geology McMaster	Isotopic studies in high grade terrains, in water-rock interaction and the Andes
Meagher,E.P. Geological Sciences British Columbia	Chemical bonding and high pressure crystal chemical studies of minerals
Medioli,F.S. Geology Dalhousie	The camoebian and foraminiferal distributions in Eastern Canada. Techniques of study and applications to studies of Nplocene-Pleistocene paleoceanography and possibly biostratigraphy
Mereu,R.F. Geophysics Western Ontario	Deep and shallow seismic sounding research
Merriam,J.B. Geological Sciences Saskatchewan	Strain tides
Miall,A.D. Geology Toronto	Basin analysis of fluvial and glacial deposits
Michel,F.A. Geology Carleton	Isotope investigations of northern groundwaters, permafrost and related phenomena
Middleton,G.V. Geology McMaster	Field and laboratory studies of clastic sediments

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Miller,H.G. Earth Sciences Memorial	Geophysical investigations of Newfoundland geology - onshore and offshore
Mitchell,R.H. Geology Lakehead	Petrology and geochemistry of kimberlites and alkaline rocks
Moon,W. Earth Sciences Manitoba	Theoretical geodynamics and seismology research
Moore,R.M. Oceanography Dalhousie	Trace element scavenging studies
Moore,T.R. Geography McGill	Biogeochemistry of peatlands
Morgan,A.V. Earth Sciences Waterloo	Paleoecology, zoogeography and paleontology of quaternary insects
Mossman,D.J. Geology Mount Allison	Geological processes involved in ore formation
Mountjoy,E.W. Geological Sciences McGill	Diagenesis of Paleozoic reefs and platforms; structural geology of Jasper-Valemount main ranges
Muecke,G.K. Geology Dalhousie	Geochemical and isotopic studies on metamorphic and igneous rocks, minerals and ores with special emphasis on the evolution of the meguma zone, N.S. and eastern Canadian continental margin
Muehlenbachs,K. Geology Alberta	Stable isotope exchange studies and their application to geological problems
Murphy,J.B. Geology St. F. Xavier	Geological history of the Western Antigonish Highlands, Nova Scotia
Murthy,G. Earth Sciences Memorial	Paleomagnetic and rock magnetic investigations of precambrian and paleozoic rocks from Labrador and from the island of Newfoundland and the study of implication of the results
Mysak,L.A. Mathematics British Columbia	Dynamical oceanography and limnology
Nakiboglu,S.M. Surveying Eng Calgary	Global sea level changes and contemporary crustal motion in Canada
Naldrett,A.J. Geology Toronto	Field and experimental studies of Pt and Ni-Cu deposits and their host rocks
Narbonne,G.M. Geological Sciences Queen's	Organism-sediment interactions in Lower Paleozoic carbonates of Canada
Nelson,S.J. Geology & Geophys. Calgary	Palaeozoic correlations
Nesbitt,R.E. Geology Alberta	Metamorphism and genesis of base metal sulfide deposits
Nesbitt,H.W. Geology Western Ontario	A comprehensive geochemical study of modern sedimentary basins
Nguyen,H.T. Génie civil Ecole Polytechnique	Convection naturelle en milieu poreux: application à l'énergie géothermique
Nichol,I. Geological Sciences Queen's	Geochemical exploration in Canada
Nicholls,J.W. Geology & Geophys. Calgary	H20 contents of magmas, petrology of nephelinites and hawaiites
Nickling,W.G. Geography Guelph	An evaluation of the surface and textural controls on the entrainment and transport of sediment by wind
Nisbet,E.G. Geological Sciences Saskatchewan	Studies in Archaean Geology
Nkemdirim,L.C. Geography Calgary	Chinook processes near the ground
Noble,J.P.A. Geology New Brunswick	Faunal and sedimentary history of the north Appalachian Orogen, Silurian-Devonian
Norris,G. Geology Toronto	Biostratigraphy of Mesozoic-Cenozoic miospores and dinoflagellates
Nowlan,G.S. Geology Ottawa	Silurian conodonts of eastern Canada
Nyland,E. Physics Alberta	Geodynamics of plate margin interactions, seismic aspects
Occhietti,S. Géographie Québec-Montréal	Stratigraphie du Sangamonien - Wisconsinien, vallée et golfe du Saint-Laurent
Oke,T.R. Geography British Columbia	Climate modification by urbanization
Oldenburg,D.W. Geophys./Astron. British Columbia	Inversion and inference of geophysical data
Oldershaw,A.E. Geology & Geophys. Calgary	Natural and induced diagenesis in clastic and carbonate rocks
Osborn,G.D. Geology & Geophys. Calgary	1) Holocene/late pleistocene glacial chronology and tephrostratigraphy, Canadian cordillera 2) Dynamics of glacier bergschrunds
Ouellet,M. INRS-Eau Québec - INRS	Etablissement d'indices paléolimnologiques de polluants atmosphériques de longue portée
Page,P. Sciences de la terre Québec-Montréal	Géochimie des milieux glacio-aquatiques actuels et anciens de l'Est du Canada

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Palmer,H.C. Geophysics Western Ontario	Paleomagnetic studies of Precambrian rock units
Pearce,G.W. Geology Toronto	Paleo-and rock magnetism of phanerozoic sedimentary deposits
Pearce,T.H. Geology Queen's	Comparative petrology and laser applications in the earth sciences
Pedersen,T.F. Oceanography British Columbia	Geochemistry of sediments and interstitial waters
Pelletier,E. INRS-Océanolog. Québec - INRS	Etude des interactions du sélénium et du mercure en milieu estuarien
Pemberton,S.G. Geology Alberta	Ichnology of storm and tidal dominated sequences
Pe-Piper,G. Geology Saint Mary's	Geologic applications of mafic volcanic rock petrology and geochemistry
Perrault,G. Génie minéral Ecole Polytechnique	Métallogénie de l'or
Peterson,R.C. Geology Queen's	Composition and thermal control of cation ordering in spinels and other minerals
Pickerill,R.K. Geology New Brunswick	Palaeontology, ichnology, sedimentology and stratigraphy of eastern Canada and other selected sequences
Platt,N.G. Geology Lakehead	Petrogenetic studies of alkaline and related rocks
Pond,G.S. Oceanography British Columbia	Inlet and coastal circulation, dynamics and mixing
Price,A.G. Geography Toronto	Energy balance, snowmelt, runoff and geochemistry in a forest
Prichonnet,G.P. Sciences de la terre Québec-Montréal	Sédimentologie et paléoenvironnement des diamictites et/ou tillites du protérozoique du Québec central (Abitibi-Moyen nord)
Quinlan,G.M. Earth Sciences Memorial	Vertical motions and the stratigraphic record
Raeside,R.P. Geology Acadia	Stratigraphy, deformation and metamorphism, Cape Breton Highlands and Shelburne metamorphic complex, Nova Scotia
Ranalli,G. Geology Carleton	Role of rheology in lithosphere and mantle dynamics
Reardon,E.J. Earth Sciences Waterloo	Geochemical studies of rock/water interaction
Renaut,R.W. Geological Sciences Saskatchewan	Aspects of evaporite and carbonate sedimentology
Reynolds,P.H. Physics/Geology Dalhousie	Argon geochronology and stable isotope studies
Risk,M.J. Geology McMaster	*) Paleontology of Arctic bivalves 2) Animal-sediment relationships on Artic coastlines
Rivers,C.J.S. Earth Sciences Memorial	Metamorphic and structural studies in Precambrian and Phanerozoic orogens, with particular emphasis on the Grenville Province
Robin,P.Y.F. Geology Toronto	Rock and mineral deformation, measurements and physical chemistry
Robinson,P.T. Geology Dalhousie	Petrology, structure and origin of the ocean crust
Rocheleau,M. Géologie Laval	Stratigraphie, sédimentologie et métallogénie de l'or de quelques séquences archéennes dans la Ceinture d'Abitibi
Rochester,M.G. Earth Sciences Memorial	Theoretical global geophysics and planetary physics
Rodrigues,C.G. Geology Windsor	Paleoecologic and stratigraphic significance of foraminiferida, ostracoda, and invertebrate macrofossils in the Champlain Sea basin
Roeder,P.L. Geological Sciences Queen's	Experimental and microprobe study of basic igneous rocks
Ross,J.V. Geology British Columbia	Structure and mechanical properties of silicate minerals: structural studies in central B.C.
Rouse,G.E. Botany British Columbia	Tertiary palynostratigraphy in western Canada
Rouse,W.R. Geography McMaster	Advective influence of Hudson Bay on terrestrial climate and permafrost
Roy,A.G. Géographie Montréal	Flow and sedimentary processes at river junctions
Rucklidge,J.C. Geology Toronto	Geological studies using ultra-sensitive and x-ray analysis
Rudd,J.W.M. Microbiology Manitoba	* Refer to C.A.Kelly(Winnipeg)
Ruddick,B.R. Oceanography Dalhousie	Spindown, dissipation, and mixing of a mediterranean salt lens
Russell,J.K. Geological Sciences British Columbia	Volcanic petrology of hawaiian lavas

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Russell,L.S. Geology Toronto	The Cretaceous-Tertiary transition in Alberta; biostratigraphy of the Edmonton Group
Russell,R.D. Geophys./Astron. British Columbia	1) Isotopic studies of earth evolution 2) Geophysical instrumentation
Rust,B.R. Geology Ottawa	Studies of alluvial and related clastic sedimentation
Rutherford,G.K. Geography Queen's	Pedogenesis of soils on basic igneous rocks
Rutter,N.W. Geology Alberta	Amino acid dating techniques
Ryall,P.J.C. Geology Dalhousie	Magnetic properties of sea floor basalts and structure of mid-ocean ridges
Sasson,I.M. Geological Sciences McGill	Fluid evolution, alteration and ore deposition at the Mt. Pleasant W-Mo-Bi deposit
Sanderson,B.G. Physics Memorial	Lagrangian dynamics and eddy-diffusion
Sarjeant,W.A.S. Geological Sciences Saskatchewan	Fossil dinoflagellate cysts and acritarchs; morphology, evolutionary relationships and application in palaeoecology and biostratigraphy
Scarfe,C.M. Geology Alberta	Physical and chemical properties of silicate melts of geological interest
Schenk,P.E. Geology Dalhousie	Carboniferous evaporite/carbonate sedimentology and stratigraphy, Nova Scotia
Schloessin,H.H. Geophysics Western Ontario	Physical properties (mechanical, thermal, electrical, optical, magnetic) of matter under conditions of planetary interiors
Schreier,H. Soil Science British Columbia	Using remote sensing techniques to quantify soil degradation processes
Schwarcz,H.P. Geology McMaster	Isotopic geochemistry
Schwartz,F.W. Geology Alberta	Exchange processes and mass transport in groundwater systems
Schwarz,E.J. Mineral Eng. Ecole Polytechnique	History of vertical movements of the Precambrian shield
Schweger,C.E. Anthropology Alberta	Pleistocene paleoecology and stratigraphy of Alaska-Yukon tephras and paleoecology of the ice-free corridor, Alberta
Schwerdtner,W.M. Geology Toronto	Strain patterns of large structures in the Canadian shield
Scott,D.B. Ctre Marine Geol. Dalhousie	Microfossil studies in Eastern Canada-applications to paleoceanography and biostratigraphy
Scott,S.D. Geology Toronto	Geology and geochemistry of massive sulfide ores
Seguin,M.K. Geology Laval	Paleomagnetism and permafrost geophysics
Serodes,J.B. Génie civil Laval	Echanges sédimentaires entre l'estuaire du Saint-Laurent et ses zones intertidales
Shaw,D.M. Geology McMaster	Geochemical studies of minerals and rocks
Shaw,J. Geography Queen's	Processes of glacial sedimentation and landformation
Shoemaker,E.M. Math/Statistics Simon Fraser	Subglacial processes and frozen ground
Silverberg,N. Oceanography Québec-Rimouski	Sediment accumulation phenomena in the St. Lawrence Estuary
Simony,P.S. Geology Calgary	Tectonics of the Rossland arc
Sinclair,A.J. Geological Sciences British Columbia	Anomaly recognition in multivariate data for more efficient mineral exploration
Singh,B. Geography Montréal	Characterization and modeling of evapotranspiration on a meso scale
Skippen,G.B. Geology Carleton	An experimental and field study of metamorphic rocks
Slaymaker,H.O. Geography British Columbia	Runoff, solute and sediment production and transport in mountain basins, BC
Smalley,I.J. Earth Sciences Waterloo	Glacial soils project
Smart,C.C. Geography Saskatchewan	Hydrologic tracing and computer simulation in the study of karst & glacial aquifers
Smith,D.G. Geography Calgary	Sedimentology and deposition style of the holocene and late pleistocene Athabasca, Peace and Slave River delta complex
Smith,D.G.W. Geology Alberta	Applications of the electron microprobe in mineralogy, petrology and meteoritics
Smith,J.L. Geological Sciences British Columbia	Mass and heat transfer in porous and fractured media

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Smith,M.W. Geography Carleton	Field observations of frost heave and stresses in frozen ground
Smith,P.L. Geological Sciences British Columbia	Early jurassic biostratigraphy of North America
Smith,T.E. Geology Windsor	Tin mineralization and its association with peraluminous granitoid rocks in Nova Scotia and S.W. England
Smylie,D.E. Earth Sciences York	Dynamics of the earth
Sonnenfeld,P. Geology Windsor	Evaporite genesis
Spanos,T.J.T. Physics Alberta	Multiphase flow and seismic wave propagatio in porous media
Spencer,E.J. Geology & Geophys. Calgary	Geochemical evolution of the Western Canada sedimentary basin
Spooner,E.T.C. Geology Toronto	The fluid inclusion gas species, and isotope geochemistry of hydrothermal ore deposits
Spratt,D.A. Geology & Geophys. Calgary	Geometry and deformation mechanics of thrust belts
Starkey,J. Geology Western Ontario	Textures and microstructures of deformed rocks and ores
Stauffer,M.R. Geological Sciences Saskatchewan	1) Structures in rocks 2) Exploration seismology in Precambrian Shield
Stearn,C.W. Geological Sciences McGill	Paleoecology of reefs
Stesky,R.M. Earth/Planet. Sci. Toronto	Geophysical and mechanical properties of fractured rock
Stevens,R.K. Earth Sciences Memorial	Evolution of early Paleozoic oceans and continental margins
St-Julien,P. Géologie Laval	Relations géométriques entre les structures mésoscopiques, macroscopiques et la tectonique globale de la partie sud-ouest des Appalaches du Québec
Stockey,R.A. Botany Alberta	Cretaceous and teritary plants from western Canada
Strangway,D.W. Geology Toronto	Magnetic and electrical studies of geological significance
Stringer,P. Geology New Brunswick	Relation of cleavage to folding in the Appalachian - Caledonian orogenic belt
Strong,D.F. Earth Sciences Memorial	Crustal and metallogenic studies of regions bordering the North Atlantic
St. Seymour,K.C. Geology Concordia	Chemostratigraphy of greenstone belts, Slav Province, NWT, Canada
Sundby,B. Oceanography Québec-Rimouski	Early diagenesis of transition metals in coastal marine sediments
Susak,N.J. Geology New Brunswick	Chemistry of hydrothermal solutions
Symons,D.T.A. Geology Windsor	Paleomagnetic studies: Cordilleran geotectonics and ore genesis
Taner,M.F. Génie minéral Ecole Polytechnique	Gîtologie et métallogénie de l'or, région de l'Abitibi
Tassé,N. INRS-Géoress. Québec - INRS	Sédimentation et diagenèse en relation avec les minéralisations dans les basses-terres du Saint-Laurent
Taylor,C.H. Geography Trent	1) Hydrology of catchments in the Dorset Lakes region 2) Effects of urbanization on streamflow 3) Sediment yield from an agricultural drain
Teller,J.T. Earth Sciences Manitoba	History of the nipigon basin link between east and west
Terasmae,J. Geological Sciences Brock	Chronology and correlation of ice retreat and glacial lake phases in the northern Lake Ontario region
Thode,H.G. Chemistry McMaster	Mass spectrometric, nuclear and isotope chemistry and geochemistry studies
Trenhaile,A.S. Geography Windsor	The development of rock coasts
Trudel,P. Génie minéral Ecole Polytechnique	Distribution de l'or dans les roches de l'Abitibi, et applications à la métallogénie et à l'exploration minérale
Trzcienski,W.E. Géologie Montréal	Petrology and tectonics of the Canadian Appalachians
Turek,A. Geology Windsor	Geochronological studies of the archean
Ulrych,T.J. Geophys./Astron. British Columbia	Time series analysis and inverse theory
Van de Poll,H.W. Geology New Brunswick	Paleoclimatic and depositional history of the permo-pennsylvanian transition sequence of eastern Canada
Vanicek,P. Surveying Eng New Brunswick	Geoid determination and variations of gravity

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Van Wagoner,N.A. Geology Acadia	Pre-carboniferous physical volcanology and metallogenesis of the Avalon zone of Cape Breton Island and New Brunswick
Veizer,J. Geology Ottawa	Evolution of the terrestrial exogenic system
Von Bitter,P.H. Geology Toronto	Carboniferous and permian conodont biostratigraphy and palaeoecology, Arctic Canada
Vreeken,W.J. Geography Queen's	Quaternary soil-landscapes in southwestern Saskatchewan
Waldron,J.W.F. Geology Saint Mary's	Sedimentology and structural evolution of Cambro-Ordovician continental margin sequences in the Canadian Appalachians
Walker,R.G. Geology McMaster	Development of clastic facies models
Wardlaw,N.C. Geology & Geophys. Calgary	Fluid flow in sedimentary rocks and oil and gas production
Warren,H.V. Geological Sciences British Columbia	Geochemistry of mercury and thallium, guides in the search for mineralized faults
Watkinson,D.H. Geology Carleton	Genesis of metallic mineral deposits
Waylen,P.R. Geography Saskatchewan	Stochastic analysis of floods on western and central Canada
Weaver,J.T. Physics Victoria	Electromagnetic induction in the earth and oceans
Webster,I.T. Physics Memorial	The dynamics of the circulation on the Labrador Shelf
Welhan,J.A. Earth Sciences Memorial	Hydrothermal fluids and gases at mid-ocean ridges: Stable isotope studies
West,G.F. Physics Toronto	Applied, regional and tectono-geophysics
Westermann,G.E.G. Geology McMaster	Jurassic ammonites and cephalopod shells
Westgate,J.A. Geology Toronto	1) Stratigraphic applications of late Cenozoic volcanics in western North America 2) Quaternary geology and hydrogeology of the Newmarket region, Ontario
White,J.C. Geology New Brunswick	Subsolidus phenomena in deformed minerals
Wicks,F.J. Geology Toronto	Studies of serpentine minerals
Williams,H. Earth Sciences Memorial	Tectonic synthesis of Humber Arm Allochthon and Lithoprobe East geologic studies
Williams,H.R. Geological Sciences Brock	Geological study of the Wabigoon-Quetico subprovince boundary
Williams,P.F. Geology New Brunswick	Deformation mechanisms and tectonic processe
Williams-Jones,A.E. Geological Sciences McGill	The metallogeny of Cu, Mo, W and Sn in Gaspé and New Brunswick
Wilson,J.D. Geography Alberta	Flow through a shelterbelt
Wilson,M.V.H. Zoology Alberta	Late Cretaceous and Early Tertiary fishes of North America
Wilton,D.H.C. Earth Sciences Memorial	Metallogenic studies of the central mineral belt, Labrador
Woo,M.K. Geography McMaster	Storage and runoff processes in permafrost and wetland terrains
Wood,S.A. Geological Sciences McGill	Solubility of ore-forming minerals in hydrothermal solutions
Woods,D.V. Geological Sciences Queen's	Geomagnetic deep sounding studies in North America using magnetometer surveys
Woussen,G. Sc. appliquées Québec-Chicoutimi	Etude des roches Grenvilliennes dans le Saguenay - Lac St-Jean, Québec ("terrain central a granulite")
Wright,J.A. Earth Sciences Memorial	Geophysical studies of the lithosphere in Atlantic Canada
Yedlin,M. Geophys./Astron. British Columbia	Exploration geophysics modeling
York,D. Physics Toronto	Geochronology and isotope studies
Young,G.M. Geology Western Ontario	Stratigraphy, sedimentology and geochemistry of Proterozoic rocks
Young,R.P. Geological Sciences Queen's	Ultrasonic spectroscopy in rock property characterisation
Zentilli,M. Geology Dalhousie	Metallogenic studies in Nova Scotia and the Central Andes
Zodrow,E.L. Geology Cape Breton	Carboniferous stratigraphy: Sydney coalfield, Nova Scotia

Ballivy,G. Génie civil Sherbrooke	Optimisation des structures ancrées et des voiles d'étanchéité dans les massifs rocheux
Bauer,A. Mining Eng. Queen's	Simulation and structural response to blasting and vibrations
Bauer,G.E.A. Civil Engineering Carleton	1) In-situ behaviour of soils 2) Development of field testing devices
Budkowska,B.B. Civil Engineering Concordia	Constitutive equations for thermoviscoelastic soils
Byrne,P.M. Civil Engineering British Columbia	Analytical methods in soil and soil-structure interaction problems
Calder,P.N. Mining Eng. Queen's	Analysis of microseismic emissions during rock failure
Campanella,R.G. Civil Engineering British Columbia	In-situ testing of soil for foundation design and analysis
Chapuis,R.P. Génie civil Ecole Polytechnique	Problèmes d'exécution et d'interprétation des essais de perméabilité en place
Chari,T.R. Fac of Engineering Memorial	1) Iceberg scour studies: 2) In-situ testing using a free fall penetrometer; 3) Ultimate capacity of piles under inclined loads; 4) Seabed stability under wave loading
Chee,S.P. Civil Engineering Windsor	Hydraulics of ice-covered channels
Cherry,S. Civil Engineering British Columbia	Topics in earthquake engineering 1) Pseudononlinear seismic analysis 2) Seismic response of vibration isolated equipment: seismic response of submerged structures
Clark,J.I. C-CORE Memorial	Soil-structure interaction of bottom founded offshore platforms
Crawford,A.M. Civil Engineering Toronto	Equivalent material properties for discontinuous rock masses
Curran,J.H. Civil Engineering Toronto	A three-dimensional hydraulic fracture propagation model for discontinuous rock masses
Davenport,A.G. Engineering Western Ontario	Wind, wave and other load effects on major structures
Finn,W.D. Soil Dynamics British Columbia	Behaviour of ground and structures under wave and earthquake loading, seismic risk studies, moving boundary problems
Franklin,J.A. Earth Sciences Waterloo	Practical applications of soil & rock mechanics
Graham,J. Civil Engineering Manitoba	Effects of stress release and sampling disturbance on the engineering properties of offshore clays
Horvath,R.G. Civil Engineering McMaster	Engineering behaviour of soft rock
Joshi,R.C. Civil Engineering Calgary	1) Test(s) to evaluate pozzolanic activity & self cementitious value of fly ash 2) Sulfate resistance of geocrete & concrete containing fly ash 3) Thermal stabilization of clayey sediments from the Beaufort Sea 4) Correlation between engg. properties & geological origin of soils
Ladanyi,B. Génie civil Ecole Polytechnique	Mesure des propriétés rhéologiques des sols gelés et des évaporites et leur utilisation dans la conception d'ouvrages
Lafleur,J. Génie civil Ecole Polytechnique	Perméabilité des argiles superficielles altérées et fissurées
Mitchell,P.J. Civil Engineering Queen's	Model studies on earth structures
Morgenstern,N.R. Civil Engineering Alberta	Geotechnical behaviour of permafrost, oil sands, and other natural materials
Morin,P. Sci. appl./génie Memorial	Improvement of deep geotechnical offshore investigations by self-boring techniques
Peterson,A.W. Civil Engineering Alberta	Channels formed in sediment
Poorooshasb,H. Civil Engineering Concordia	Constitution relationships for soils - Application to geotechnical problems
Sauer,E.K. Civil Engineering Saskatchewan	Slope stability of heavily overconsolidated clays
Scott,J.D. Civil Engineering Alberta	Strength - Deformation properties of soil-fabric systems gas exsolution influence on foundations on oil sand
Sego,D.C. Civil Engineering Alberta	Strength and deformation of frozen soil
Selvadurai,A.P.S. Civil Engineering Carleton	Studies in soil-structure interaction
Thomson,S. Civil Engineering Alberta	Engineering characteristics and behaviour of stiff clay (till) and soft rocks and their application to engineering projects
Yong,R.N. Civ Eng/App Mech McGill	Clay soil structure control over short and long term properties

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